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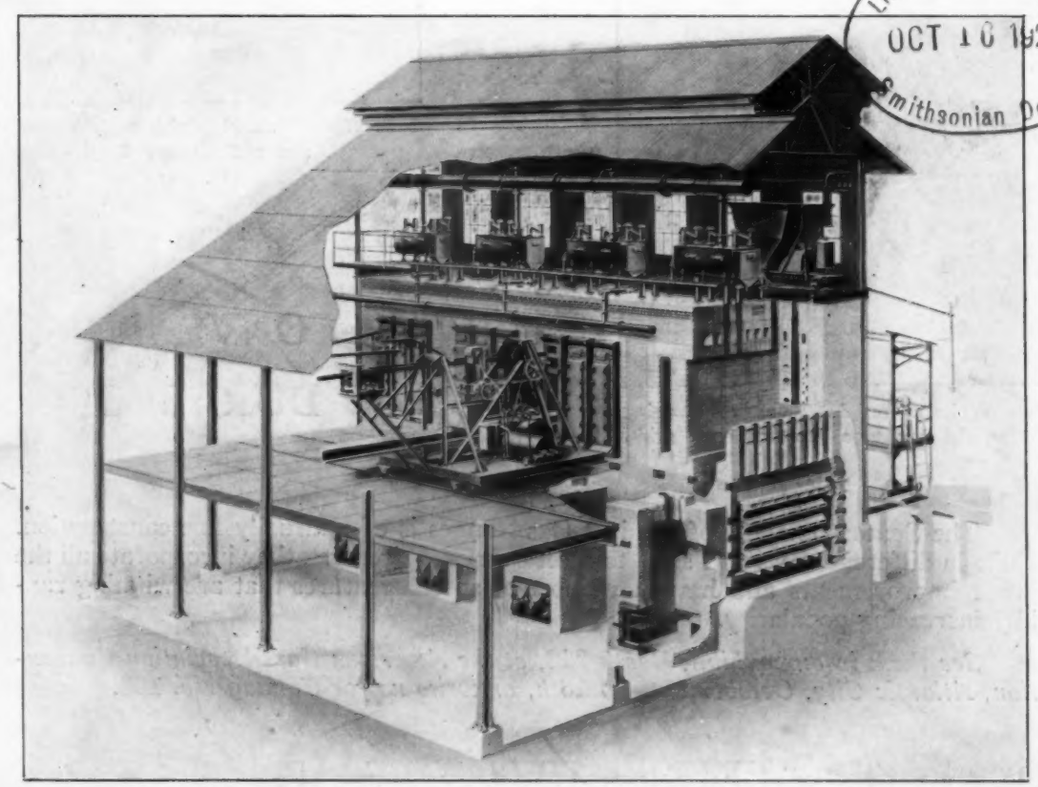

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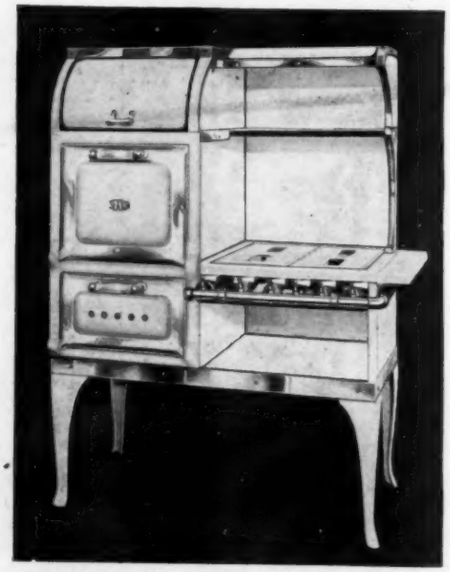

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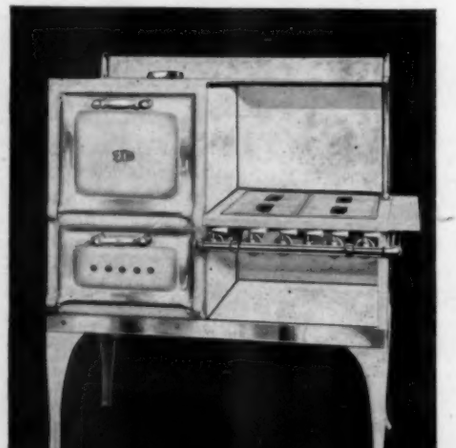

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American
GAS JOURNAL

Vol. 123 No. 16 NEW YORK—OCTOBER 13, 1925—ATLANTIC CITY, N. J. Whole No. 3542

Gas Men Again Assembling

Many Business and Entertainment Features Provided In Seventh Annual Convention

Atlantic City was a cold place over the week-end, but that's all fixed now. A place just couldn't be cold very long with a gang of gas men around. And the American Gas Association cohorts surely are warming the big resort this year in their seventh annual convention.

As early as last Friday they began to arrive and while there weren't a great many around on Sunday, the temperature on the Boardwalk started to go up with the arrival of the first train yesterday. Now there's a warm glow of welcome reflected all over the east coast of the State of New Jersey.

Judging from remarks already heard in the hotel lobbies, on the Steel Pier, and anywhere between the hotels and the pier, there's going to be a hot time in old town. Of course, that's just as it should be. Outstandingly, the use of gas is for heating and with three thousand or more men and women of the industry on the spot, things simply must warm up.

The improved feeling throughout the industry is reflected in the gathering getting under way. The past year has been a period of preparation and development, but now that formative period is drawing to a close and the feeling is that gas has arrived, that real prosperity is here. The sessions and symposium will bring these facts out more clearly than written word, even if in bold face italics, ever cold.

THE EXHIBITORS

Exhibitions on the pier give some indication of this. There are a greater number of booths than at any previous convention, and all are filled. The Steel Pier has done nobly. Visitors and members of the A. G. A. will note a few changes in structure of the pier. When an unfortunate blaze wreaked considerable damage at the land end of the structure, the management took the opportunity to make a number of alterations which have already proved their value.

To previous Atlantic City gas convention attendants, little need be said in description of the exhibition. Booths are again masterpieces of the decorator's and advertiser's art. Paintings that would do honor to the finest collection tell the story of this equipment and that, while where the products of the various plants are small enough, the actual machine is on show, with welcoming and willing members of the force on hand to tell the story of their company, and the advantages of their individual outputs.

Lavender and yellow this year are the color notes of the two great exhibition halls, and booths are fitted to match. In each of the booths are one or more easy chairs, of reed or wicker, cushioned where cushions will do the most good.

"If it's done with heat, it can be done better with gas," is the slogan and every man is out to show that those words mean just what they say. Just how much better it can be done and how much better gas can be used to do it form the program of the convention gatherings. This is the basis on which the program committee built its meetings, the first of which, that of the Manufacturers' Section, took place yesterday afternoon.

FIRST GENERAL MEETING THIS MORNING

With the meeting of all the gas men at the first general session at ten o'clock this morning, the convention will be in full swing. From that moment, until the end of the week, when trainloads of gas people will once again scatter to the four corners of the Union, there'll be not an idle moment for anyone.

Not only will the sessions be crammed full of the most nourishing sort of business fare, but the series of entertainments will take up every other spare moment.

Early opportunity will be offered those inclined to trip the light fantastic when, following the President's Reception in the Convention Hall of the Steel Pier this evening, a Vincent Lopez Orchestra of twenty pieces will furnish dance music till the wee hours. Preparations have been made to take care of three thousand persons, members of the gas association and their guests, at the reception.

LADIES' LUNCHEON

The ladies attending the convention will be the Association's guests at a luncheon tomorrow in the Submarine Grill of the Hotel Traymore, to be followed by a card party in the hotel's Rose Room. The association calls attention to the fact that tickets for this must be obtained at the Entertainment Window of the Registration Desk on the Steel Pier by 10.30 o'clock tonight.

That most vital connection for the gas men, with the public, will have two eminently able expositors tomorrow evening at a symposium in the auditorium on the second floor of the Steel Pier when the Hon. William A. Prendergast, chairman of the New York State Public Service Commission, and Mrs. Anna J. Peterson, of the People's Gas Light & Coke Co., of Chicago, will address the Public Relations Symposium. Again Vincent Lopez's Orchestra will furnish music for dancing following the talks.

A "MONTE CARLO NIGHT"

Novelty in entertainment is to be provided Thursday evening at "Monte Carlo Night," when the official convention badge will enable one and all to gamble milions of dollars—millions, mind you—on the wheel of fortune. To the tireless "steppers" the dance orchestra once again will cater, with a third session of dancing to top off the convention visit.

If relatively little has been said here of the programs of the various sessions, it is only because appetites are already so keen that anticipatory remarks could hardly serve to whet them further. Suffice it to say that among those on the programs are Henry L. Doherty, Henry O. Loebell and Prof. George Burton Hotchkiss, New York University, all of New York; Horace C. Porter and W. Griffin Gribbel, of Philadelphia; Ewald Haase, T. V. Purcell, Fred H. Scheel, Herman A. Groth, B. J. Mullaney and Homer J. Buckley, of Chicago; Charles A. Munroe, of St. Louis, and many others notable in the industry.

AGAIN A HEARTY WELCOME GREETS THE GAS MEN

Connection with other branches of commerce and public endeavor will be had through the talks of George Smith, of the U. S. Rubber Company, of New York City; Dr. C. H. Goudiss, editor of Forecast Magazine! Martin J. Pierce, of the Hoover Vacuum Sweeper Co., of New York; S. F. Voorhees, of the American Institute of Archiects, New York City; Prof. Melvin T. Copeland, of the Harvard Graduate School of Business Administration; V. E. Pratt, of Pratt & Lindsey Co., of New York City, and Prof. H. A. Curtis, of Yale University.

BETTER CONTACT WITH PUBLIC

It should be mentioned that the keynote of all the sessions of the various sections is to be "Better Contact with the Public." The gas men, realizing that continued success can come only from the widest application of the industry, and the most broad spread use of appliances are seeking to improve public relations.

That is why, scattered throughout the convention sessions, there will be addresses such as "What National Advertising Can Do for the Industry," "The Job Ahead in Selling," "Developments in Home Service," "Direct-Mail Advertising," "Keeping Women Sold on Gas," "Getting the Editor's Friendship," "The Story the Public Ought to Know" and "The Public's Interest in Information Committee Work."

With a keen sense of how well everyone likes to walk along the ocean front, perhaps the most celebrated promenade in the world, the various sessions have been pretty well scattered. The general sessions, of course, will take place each morning in the Convention Hall at the ocean end of the Steel Pier as will the Commercial Section's sessions.

In the auditorium on the second floor at the Boardwalk end of the pier, the Public Relations Symposium, as has been mentioned, the Technical and Manufacturers' Sessions will meet. The Accounting Section will hold its gatherings in the Vernon Room at Haddon Hall. The Industrial Gas Section will get together in the Music Room in the newly built section of the Chalfonte, while the National Conference of the Publicity and Advertising Section will take place in the Belvedere Room of the Hotel Traymore.

Our Association a Prime Factor In Gas Progress

President H. C. Abell Tells Of Work Accomplished And Of Tasks Of The Future

Has the American Gas Association since its organiation in 1918 carried out, and is it now conducting, its business and pursuing policies which are in accordance with the purpose of its founders and along the broad, unselfish and liberal lines laid down in its constitution?

The first President, Mr. George B. Cortelyou, in his address at the First Annual Convention of the American Gas Association in New York, October 13, 1919 (six years ago today), made the following striking statement:

"Some may think that we take the work of the Association very seriously. We do. We would be unfitted to hold office as your representatives if we did not. But seriously as we feel the responsibilities you have put upon us, few of us realize what the value of the Association would be to the industry and to the country if it should actually accomplish the purposes of its founders. These purposes can be accomplished, our ideal can be achieved, but only by standing shoulder to shoulder, only by hard work and genuine co-operation, each member doing his share 'pulling his weight in the boat', as the phrase goes. The industry must as never before impress itself upon each community, and each company must feel its individual responsibility in that regard. It is as true today as it ever has been that 'a house divided against itself cannot stand.' The members of the gas company must co-operate to a common end. They must work tirelessly for the highest efficiency, and for the creation of a just and friendly public opinion.

"Let us all give our best efforts to make our industry more and more worthy to hold a commanding position in the business life of America.

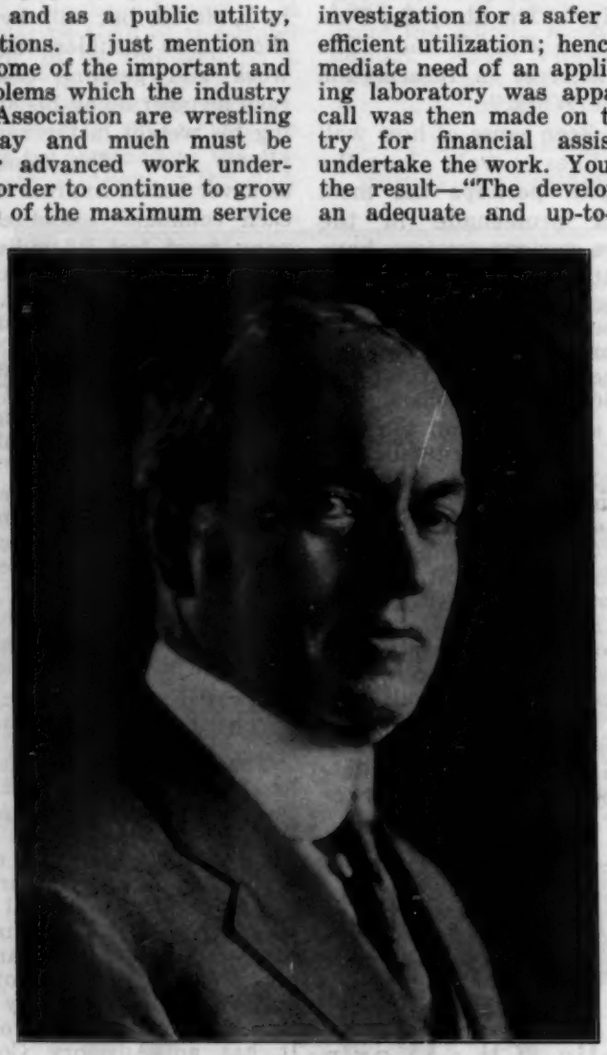
"Let's go. Let's Go Forward—to our task, our duty, our opportunity, in the Land of Fair Play."

UNIFIED EFFORT IN SERVICE OF AMERICAN PUBLIC

The American Gas Association has brought about unified effort in the gas industry in the service of the American public. It has done for the individual gas company, the individual manufacturing company and the individual member what no one could for himself. It has twenty-six officers and directors from all branches of the industry meeting regularly and deciding broad questions of policy. It has an Advisory Council of thirty-eight members, which together with the members of the Board and guests meet at stated periods and confer over the principal problems of the industry. It has been the policy of the Board of Directors and the Advisory Council to invite many of the leaders of the industry, who do not happen to be members of the Board of Council, to attend the conference and participate in its deliberations. It has four hundred committee members from all sections of North America, which includes all departments of activity exchanging views, experiences and molding the developments of the future.

DEMANDS MUST BE MET

The gas business, to progress and to keep pace, must meet its demands, and as a public utility, its obligations. I just mention in passing some of the important and vital problems which the industry and the Association are wrestling with today and much must be solved or advanced work undertaken in order to continue to grow and to be of the maximum service to the communities served and to mankind.



H. C. Abell, President of the American Gas Association

Originally, practically all one quality of gas was distributed in any one community—the gas was used principally for one purpose, "lighting." The added methods of manufacturing gas changed the constituents in the gas distributed and changed its specific gravity. Then came the increased uses for gas which made it impossible to permit too many variables of quality, service, and type and kind of appliance to enter into its best and proper utilization. Following the increased and greater use of gas came the demand for a thorough investigation for a safer and more efficient utilization; hence the immediate need of an appliance testing laboratory was apparent. A call was then made on the industry for financial assistance to undertake the work. You all know the result—"The development of an adequate and up-to-date gas appliance testing laboratory," which is now functioning. The laboratory, I am pleased to report, has the full support of the gas industry, the gas companies, and the appliance manufacturer. It also has the full support and co-operation of the Federal Bureau, the Bureau of Standards, the Bureau of Mines, Health Bureau, etc. A report will be made at this Convention for your information, so I will just refer to the laboratory—the report will give you the details. The other important demands which are now pressing will unquestionably soon be met. We all realize that it takes money to work out the solution of problems—and I know the industry will gladly meet that requirement when the needs become apparent and are known.

ACCOUNTING SECTION

In addition to the exchange and dissemination of information concerning accounting methods this section had big things to do. It assisted in preparing the Uniform Classification of Accounts for Gas Companies now generally in use by our companies and recognized legally by most of the states. It has accomplished much in its study of insurance rates, thereby securing substantial reductions in premiums. It makes a specialty of analyzing gas company statistics so that our people may know where they are on items of receipts and expenditures.

The Accounting Section has rendered constructive and practical contributions to better public relations through the study made by its Committee on Relations with Customers of how these relations can be improved in the daily contacts of employes of departments dealing with the public. This section is one of our most enthusiastic and most thoroughly organized.

COMMERCIAL SECTION

During the year just ended the Commercial Section has prepared, and with the approval of the Executive Board, has put into operation the first stage of a three-year program of sales development through the medium of Regional Sales Councils. It has in this connection developed a Monthly Sales Service now in use by a large number of companies, designed to stimulate commercial sales. It is giving the strongest support to home service work, to window displays and to advertising. It is a striking fact, that as a result largely due to this activity, the number of gas companies maintaining home service departments has increased from fourteen to more than sixty. It is realized a tremendous field for broadening our business is afforded by contact with the women of the nation, who

use our product in ten million homes.

This section has also made a most admirable study of refrigeration by gas, which is to be followed up by facts and figures to demonstrate its practicability and its general utilization. It is thought that this development will be a factor in improving load conditions and ultimately influencing beneficially the entire cost of service. It is the sincere hope that every assistance will be accorded the manufactures of this very important apparatus.

INDUSTRIAL GAS SECTION

It is difficult to give full credit to the work done by this section at a time when the promotion of industrial sales is most important. It is behind many projects of vital interest, including research, development and educational work. Under its auspices a series of booklets is being issued on such subjects as House Heating, Combustion, Bakeries, Hotels and Restaurants, etc. These booklets are a great credit to the industry and have been of incalculable value and consequently have been warmly received by the industry generally. They contain an enormous amount of valuable information which can be studied with profit not only by engineers but by all those vitally interested in the gas business.

During the year, at the instance of the Industrial Gas Section and with the full approval of the Executive Board, there was inaugurated a special campaign of advertising gas for industrial purposes. This has been placed in various trade magazines thereby reaching manufacturers who can efficiently and economically use gas as a fuel. Funds were contributed voluntarily by a group of the large gas companies, which were very generously and gladly given.

MANUFACTURERS' SECTION

The manufacturers of gas appliances, apparatus, etc., are most loyal and thoroughly co-operative. They not only add tremendously to the value and interest in the Convention, but they work in many ways toward improvement of service to the public.

The interest shown by the manufacturers is graphically demonstrated by the following statement of the amount of exhibit space used at the Annual Convention:

Year	Location	Number of Exhibitors	Sq. Ft. Exhibition Space Sold
1918	No Convention	—	—
1919	New York, N. Y.	110	8606
1920	New York, N. Y.	110	10343
1921	Chicago, Ill.	112	9518
1922	Atlantic City, N. J.	135	19228
1923	Atlantic City, N. J.	165	24972
1924	Atlantic City, N. J.	181	27268
1925	Atlantic City, N. J.	177*	30380

*To date—July 29, 1925.

Further indication of the thorough co-operation of manufacturers in all branches of the Association work is shown by the fact that of 75 main committees, the manufacturers are represented on 39 and participate very actively.

PUBLICITY AND ADVERTISING SECTION

This section is the mouthpiece of the gas industry, to intelligently and interestingly tell to the American people its necessity, purposes and accomplishments. Among its myriad activities is the issuance of a weekly news bulletin. In order to check up what this means, a survey was made covering the months from May 1 to November 1, 1924, when it was found that of 78 news stories sent out by the section, the total number of news stories used and distributed by the State Committee was 272. Follow-

THE WHITE HOUSE
WASHINGTON

September 16, 1925.

My dear Mr. Abell:

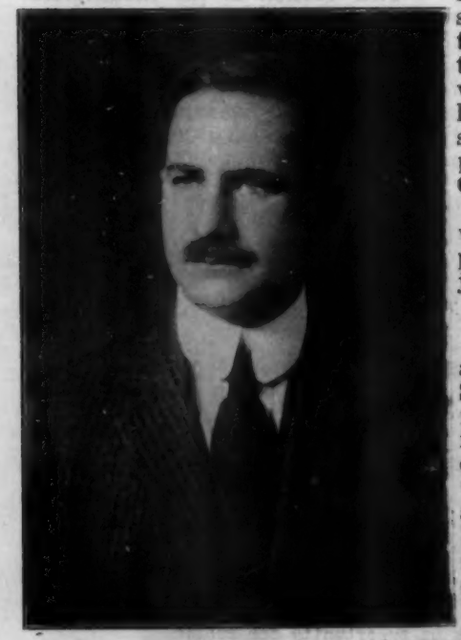
Remembering as I do with much pleasure my previous visit to the Convention of the American Gas Association, I am doubly glad to extend my greetings to the members. Your industry has seemingly entered upon a new period of growth, and this will be steady and permanent in proportion as your Association keeps constantly in mind that it is an opportunity for public service as well as personal gain. I am sure that this object will be always before you, and that you will meet adequately your problems and your responsibilities to the people whom you serve.

Very truly yours,

Calvin Coolidge

Mr. H. C. Abell,
President, American Gas Association,
342 Madison Avenue,
New York City.

ing some active work these figures were considerably better during the next succeeding six months from November 1, 1924, to May 1, 1925, when 121 stories were sent



C. H. Smoot
Pres. Smoot Engineering Corp.

out and 440 were used by State Committee. Generally speaking, the directors of the State Committee on Public Utility Information are thoroughly appreciative of this service.

The section is featuring the very important work of the State Public Utility Information Bureaus, as suggested in my opening remarks. I will have more to say about the importance of this work during the Convention.

The Publicity and Advertising Section and the Commercial Section are assisting the women in the industry to become more helpful in developing the business and creating better public relations. It is thought that the "women can do more to harmonize a gas company," quoting the words of Miss Dillon in her address last year, than can any other employes.

I feel that I would be exceedingly lacking if I did not refer to the loyal and effective support constantly given the gas industry by the trade journals. I also wish to thank the many other journals, periodicals and papers which have so many times spoken a good and favorable word, but nevertheless a true one for the industry. Headquarters has a complete list and a reference to the articles if anyone should be interested. I also wish to call your attention to some of the very effective gas security advertising, statements and pamphlets which have been published, such as that of Hambleton & Company of Baltimore, Bonbright & Company of New York, etc.

I am sure that the gas industry very much appreciates this support and feels that the business justified it all and much more.

TECHNICAL SECTION

Time will not permit me to dilate on the work of the Technical Section. Its ramifications and many important details make it impossible to mention even a few of the important ones, because they all have a decided bearing and influence on the industry. To be appreciated, the work must be studied in detail through its proceedings and its sectional and committee meetings. Its myriad lines of endeavor, each being made available to all our people, have been of untold value in the dissemination of technical information, leading to a scientific and practical development.

GENERAL COMMITTEES

The work of the Committee on Co-operation with Educational Institutions has been conducted most successfully. The committee has been instrumental in arranging courses in gas engineering in colleges, courses of lectures on public utility relations, financing policy and many others. It has for its ultimate purpose proper preparation of prospective employes of gas companies, and an education of the public as a whole to a better understanding of the most important part which the gas industry represents in the affairs of the nation and in its future.

The Committee on Education of Gas Company Employes is most active in all its undertakings. It has issued a series of valuable booklets. The committee also follows and promotes with success the efforts of the companies to heighten the efficiency and stimulate the intercompany relations of employes.

ACCIDENT PREVENTION

The Accident Prevention Committee has done a notable work and its activities have resulted in stimulating and co-ordinating the activities of member companies in this field. It co-ordinates and co-operates with other safety organiations which stimulates and increases its usefulness and efficiency.

The Customer Ownership Committee, as its name implies, works to increase the acquisition of gas company securities by the patrons and employes and points out to company executives the many collateral advantages of such ownership and the more sympathetic understanding which such ownership brings about.

The Committee on Rate Fundamentals has a report which will be presented at a later time in the general sessions and which should have the attention of this convention.

RATE STRUCTURE

The Rate Structure Committee has some vital matters for your consideration and I commend its report to your earnest perusal. Both the committees have done exceedingly good work in following recent decisions of courts and commissions and have pointed out the

Elbert E. Oyster
Treas. Guardian Gas Appliance Co.

necessity for proper rate schedules in order to permit the industry to provide the maximum service and facilities.

The Committee on the Gas Safety Code has completed the code. The amount of work necessary and the numerous conferences which had to be held before a conclusion could be effected is almost unbelievable. The industry is under deep obligations to that committee.

I have not mentioned other committees and sub-committees, not because the effectiveness of their work is not appreciated or the importance of their undertaking not known, but merely because I cannot take any more time of this convention.

THE FUTURE

I will now touch on the future as I see it.

The gas industry may be compared to a fast growing, aggressive and developing city. Its work is never completed. Its problems are many and diversified. The solution or progress in meeting the problem requires constant application of its residents (membership) shoulder to shoulder and in a constructive way, with a proper supply of finances through contributions or taxes to pay for the work of the planning and the investigating which must be done. In the case of the city, many of the most progressive and advanced citizens are called upon to furnish both—capital and their time and energy. The Gas Association is similar in some respects.

We cannot say in 1925 that the American Gas Association, has, in the words of President Cortelyou in 1919, actually accomplished the purpose of its founders. It is self-evident that it can never complete its work and absolutely meet and finish all its obligations, because the industry must be continuously developing and expanding and must meet its opportunities and its responsibilities. It is, however, felt that the Association is well on its way, even though it cannot at any time reach all ultimate objectives. Certainly the industry has accomplished that part of his ideal "by standing shoulder to shoulder, by hard work and genuinel co-operation, each member doing his share, 'pulling his weight in the boat.'" Certainly there is no organization in existence showing and demonstrating a better spirit of co-operation and mutual help than that manifested in the American Gas Association. A continuation of this manifestation is no longer a conjecture. The gas industry is assured of the most complete co-operation of every branch of its business, therefore its rapid advancement is here and must be met. I will not here mention any activities which are beyond the swaddling clothes stage, even though they are new.

IMPORTANT FACTORS

I believe it is perfectly proper to bring out some facts at this tim,e which the industry has under serious consideration, not with the idea or purpose of endeavoring to do something drastic but with the sincere hope that investigation and planning may be helpful. It is realized that the gas apparatus and appliance manufacturers have been most helpful in the development of the gas business. When gas lighting was threatened, the appliance manufacturers came to the rescue in a most admirable way, and many of those concerns are still doing business today, and with some of the original officers still at the helm. It has been felt, however, somewhat recently, that there have been so many unusual demands for gas utilization that some way should be provided for proper and adequate research work to develop to meet the demands and opportunities, for a much larger and intensive utilization of gas—both industrially and domestically. This problem is in the committee stage. I know when recommendations are finally made, that the industry with a full and complete knowledge will extend itself to make the gas industry of greater and more service to mankind.

Many statements have been made about the depletion of one of the materials entering into a large percentage of the gas manufactured and distributed in this country. It has been suggested that the industry should prepare itself now, not with the idea or thought that it would be crucified if it did not, but merely as a precautionary measure anticipating a probable later necessity. It is hoped that some method can be devised so that proper investigation and research can be made respecting gas manufacture, the apparatus required—the available materials which can be used in quantity in various parts of the country and the many and varied collateral problems.

Manufacturers Listen to Interesting Papers

Section Holds Meeting and Hears About Testing Laboratory and New Plan of Appliance Sales

Opening guns of the American Gas Association's Seventh Annual Convention were put into action yesterday afternoon when the 'Manufacturers' Section went into formal session at the second floor auditorium at the Boardwalk end of the Steel Pier. The entire session, called promptly to order by the outgoing chairman, Wendell L. Smith, was notable for the wealth of constructive suggestions and general interest displayed by their hearers.

Preceding presentation of the various papers, election of a new chairman and vice chairman of the section for the coming year were made. Watson E. Derwent, of the George G. Roper Corporation, was elected to succeed Mr. Smith, while W. E. Steinwedell, of the Gas Machine Co., was elected vice chairman. Both the new chairman and vice chairman gave a brief message of thanks

and promised their best efforts in promoting the interests of the section.

ADDRESS OF CHAIRMAN

In opening the session, Mr. Smith spoke of the excellent work performed by the section the past year and gave some excellent comparative figures on the growth of the exhibits displayed. Particular cause for congratulation was found in the fact that of the seventy-two committees constituting the association, the Manufacturers' Section has been represented the past year on more than sixty percent of this number.

F. H. Knapp Riding His Hobby

In the address which followed, perhaps greatest interest was displayed in the work performed by the recently established A. G. A. Gas Appliances Testing Laboratory as set forth in an extemporaneous talk by J. S. DeHart, Jr., of the Isbell-Porter Co., Newark, N. J. The keynote of Mr. DeHart's talk was standardization of design and construction of appliances, and in enlarging on this theme, the speaker briefly emphasized the following points: (1) that the laboratory will be absolutely free from outside influences which might color their finds; (2) that the plans of those in charge of the laboratory contemplated the elimination to a large extent of the necessity of manufacturers producing different models to meet the various gas companies' requirements; (3) that in standardizing appliance construction the laboratory would reduce manufacturing costs and eliminate unsafe types of appliances; (4) that the work now being done would bring about a better understanding between the manufacturers and gas companies; (5) that the work most important at this time was to dispose of dangerous types of equipment; (6) that manufacturers should be actively interested in supporting the testing organiaztion; (7) In the discussion that followed, Mr. DeHart stated that any manufacturer of the association would be given the opportunity to have his appliances tested, and that if approved, it would be given the official seal of approval of the testing organization. One month was the time stated wherein manufacturers would be given an opportunity for criticism of the findings of the laboratory. The testing laboratory, Mr. DeHart further stated, had now the pledged support and co-operation of the United States Bureau of Standards and the Bureau of Mines.

TIME AND PLACE COMMITTEE

In calling for a report of the Time and Place Committee, the chairman, Watson E. Derwent, stated that no regular meeting had been held but that a report would be submitted Thursday of this week. It was the concensus of opinion of the members at the meeting that the convention next year should be held in some other place than Atlantic City, preferably in some city in the Middle West.

Considerable interest was manifested in an ably presented talk by Robert J. Canniff, chairman of the Commercial Section. The plan as outlined by this speaker contemplates a radical departure from present methods followed in the sale of gas appliances. The proposition in short, as put forward by Mr. Canniff, was to abandon old and time worn methods in the sale of gas appliances and to follow instead the methods utilized by the electrical industry in creating a demand for electrical lamps.

CO-OPERATION SALES

The speaker urged the creation in the gas industry of a national co-operative sales campaign based on efficient and direct sales talk combined with an extensive national advertising campaign. He pointed out that a tremendous amount of gas appliance sales were lost annually through lack of standardization of equipment. To correct this the speaker urged that the Gas Manufacturers Association adopt a national symbol or trade mark which would represent to the trade a standard approved and tested by the association laboratory.

For the purpose of holding the present big domestic market, Mr. Canniff further urged that the gas industry follow in the steps of the electrical industry and popularize the idea of the standard modern gas-equipped home. At the conclusion of his talk, Mr. Canniff urged that the Manufacturers' Section go on record as being in favor of forming a joint committee to work with the Commercial Section in inaugurating a national selling and advertising campaign.

Col. E. S. Dickey
Mgr. Maryland Meter Works, Baltimore, Md.

"COME TO MY PARTY?"

Miss Ada Bessie Swann to be the Hostess

"Just four years old is the Home Service Section of the American Gas Association, and we're so proud that on Tuesday we're going to have a birthday cake, a great three layered Ideal cake with four candles on top, and the little Home Service cook dressed up in uniform with a pretty blue sash and everything."

Thus, Miss Ada Bessie Swann, Committee of the American Gas Association, breathlessly announced, as between calls from chairman of the Home Service a host of assistants and another host of visitors, she gave half a moment's time to the American Gas Journal's ear-and-eye when

Ada Bessie Swan

he called at the booth on the Steel Pier yesterday afternoon.

Officiating with Miss Swann were Miss Marjorie Pidgeon, of Brooklyn Borough Gas Co., Brooklyn, N. Y.; Miss Kathleen Atkinson, of the Providence Gas Company, Providence, R. I.; Miss Pauline L. Rohrs, of the New York State Gas and Electric Company, Cortland, N. Y., and Miss Frances S. Mathis, of the New Haven Gas Light Co., New Haven, Conn.

You've no idea, unless you actually stopped at the booth what wonderful confections are coming out of the gas-burning ovens that are on the job there. Lemon meringue tarts just ready to melt in your mouth, clover leaf rolls, Swedish tea-rings, and dark fruit cake and macaroons that disappeared among the crowd almost as quickly as they were put out.

But it's too late for those things, so you can't expect to get them. The Home Service Department knows so many nice things to make in their gas ovens that they're going to vary the program every day, winding up on Thursday with a wonderful planked steak—Line forms on the right.

Guests from the Antipodes

From the other end of the earth have come two representatives of the Metropolitan Gas Company of Melbourne, Australia. They are having the time of their lives at the convention. The exhibitions are something quite new and different, though the individual machines, stoves and parts on display have, perhaps, been long familiar to them.

R. C. Evans, assistant secretary, and A. Elsworth, a member of the company's staff, are its two representatives here, and their trip must come pretty near to the long distance record for attendance at the convention of the A. G. A.

Public Utilities Advertising Association Directors Tendered Luncheon

Officers and directors of the Public Utilities Advertising Association were tendered a luncheon yesterday in the Hotel Traymore by William H. Hodge, president of the association. The directors met following the luncheon and appointed committees for the year. It was announced that at the June, 1926, convention of the Associated Advertising Clubs of the World, to be held at Philadelphia, the Public Utilities Advertising Association would stage a mammoth exhibit of public utility advertising literature.

Among those who attended the luncheon and meeting were: F. L. Blanchard, H. L. Doherty and Co., of New York; B. J. Mullaney, People's Gas Light and Coke Co., Chicago; W. S. Vivian, Middle West Utilities Co., Chicago; E. Paul Young, A. E. Fitkin and Co., New York; Joe Carmichael, director of the Iowa Committee on Public Utility Information; W. P. Strandborg, director of the Oregon Committee; H. M. Lytle, Chicago Rapid Transit System; Leonard Ormerod, Bell Telephone Co. of Pennsylvania; Labert St. Clair, American Electric Railway Association; George F. Oxley, National Electric Light Association; W. H. Hodge, H. M. Byllesby and Co., Chicago; Charles W. Person, American Gas Association; A. C. Watt, Hodenpyl, Hardy and Co., New York, and Irving M. Tuteur, McJunkin Advertising Co., Chicago.

"To the Ladies"

Note this time — three o'clock this afternoon.

Note this place — Booth 561, Steel Pier. That's the Home Service Committee Exhibit.

And now note that you, ladies, one and all, are invited to a demonstration of cake-making and decorating at that time and at that place today. You are "cordially invited," says the invitation which the Home Service Committee of the American Gas Association has tried to put into your hands.

And adds a note—Please be sure to wear you registration pin, as only registered visitors are admitted to the pier.

F. J. Schaefer Has Arrived

Stick Out Your Chest !

That new silver badge ! Isn't it the "cat's whiskers?" It's the A. G. A.'s response to a demand for a better looking emblem. The design is familiar—which is as it should be. Now the "hello" symbol in its entirety is fitting the greatest convention and exhibition this resort sees from year's end to year's end. "I'm a Gas Man," it says for the wearer, to everyone along the famous Boardwalk and in the hotels. "Yes, our exhibit is on the Steel Pier. Come over and let's get acquainted."

TIME FOR VISITING EXHIBITS AVAILABLE

While the program, here sketchily outlined, and more fully detailed in the convention booklet, seems an unusually full one, there will still be time for the more intimate contacts that make a general convention of such outstanding value to the industry as a whole. Not only will there be time between sessions—the morning sessions will usually end by twelve, and the afternoon sessions begin at two, ending about 4.30—but not all the sections will be continuously in session. Thus, the Manufacturers' Section wound up its business yesterday afternoon, the Publicity Section will not meet until tomorrow afternoon, and the Commercial Section has Thursday afternoon as an open date.

All in all, this promises to be the busiest and fullest convention the A. G. A. has ever held. There is more than aplenty for everyone to take away much of value. It's here, and it's not hidden, but you, Mr. Member, are the one who must take it away with you. You've been a successful "go-getter" in business. The value of the convention is all about you. GO GET IT.

The 1925 Exhibit—How It Appeared to a Newcomer

To the native son Atlantic City is probably "just one convention after another" but to one not yet sated with attendance at conventions, these assemblies present much of interest.

To begin with, the city itself, fringed with its surf-trimmed beach, comes as a distinct relief after the dreary pine-barrens crossed to reach it, wastes which nature herself seems to find unworthy of tinting colors from her autumn palette. Its edifices range from the palatial to the humble, its architectural styles from the Gothic to the nondescript, and its color scheme is as variegated as that of the traditional Joseph's coat. And omnipresent is the traffic cop.

The Gas Convention is housed in the great Steel Pier, and it might well have for its motto, "Comfort, Convenience, Courtesy." The vaulted roof is draped in streamers of orchid and jonquil intertwined with festoons of wistaria-vine. Its entire area is subdivided into booths, each of which seems to challenge comparison for nicety of display arrangement and tastefulness of decoration. The lighting scheme is well arranged invite—even coax the interested and comfortable lounges and chairs passers-by to tarry a while. In every booth courteous and well-informed attendants are unobtrusively present ready to give whatever information may be desired, or if needs be a demonstration.

MANY USES FOR GAS

Gas is exploited from its alpha to omega, from its cradle to the grave, from the incubator to the crematory. The variety of its uses is amazing. Even to one fairly abreast of the improvements these later years have witnessed in the industry, there is a distinct feeling of surprise when that progress is shown in such a graphic manner as staged at the convention.

Beginning at its source one may see the machinery whereby the covering of earth is stripped to lay bare the vein of coal. Follows the methods of breaking and cleansing the same and the various processes

John B. Klummp
President Bethlehem-Allentown Gas Co.

of manufacture. Then the improved types of holders are shown in miniature where the gas is stored. It is but a step from this to the piping with its various controls that distribute the gas to points of consumption. Even the machines used to dig the trenches to lay the pipes are represented.

When one comes to the various uses for gas in the household why—their name is legion. The kitchen, the fireplace and furnace naturally come in for the most attention. To the householder, the gas-heated furnace spells release from anxiety; free now to leave his domicile for days at a time with no threat of frozen plumbing hanging over his head like a sword of Damocles to mar his holiday.

Not the least attractive display is the kitchen where trim attendants magically produce most attractive confections cooked by gas.

And last but not least the members of the association and their womenfolk in evidence everywhere. Big and little, dark or fair, about them all is the common attribute of sincerity and earnestness. They seem whole-heartedly wrapped up in their affairs, eager to discuss more eager to learn, most eager to improve. And the ladies fluttering like butterflies from booth to booth, their enthusiasm growing with each exhibit, lend a charming touch of color and gaiety that leavens the serious business atmosphere of the convention.

The Show on the Pier

Actual Gas Billing Conducted in Accountive Section Display

What the visitor saw yesterday on the Steel Pier was an exhibit still in an incomplete state. A number of booths were still in the construction stage and handtrucks bearing furniture and decorations and plants were being wheeled through the aisles of the convention hall, while factory and plant representatives worked to put their booths in order.

The appearance of the exhibition as a whole, however, was very attractive, and the gas men may well be proud of the work of their exhibition committee. Drapes of heliotrope and yellow and swinging vines were stretched across the hall, completely obscuring the ceiling, while around pillars and against the walls were massed ferns and palms and firs, freshening the air with their new greenery.

NUMEROUS MINIATURE MODELS A FEATURE

A feature of this year's show are the numerous miniature models on exhibit. Gas tanks, in miniature, faithfully reproducing all of the details of the real thing, complete gas and electric plants in miniature, a carbureted water gas plant, a hydroelectric plant at the edge of a dam, conveyers for loading and unloading, any number of painstaking small scale reproductions of factory equipment are on display.

The psychology of the eye-attracting power of movement and light seems to be well understood by gas manufacturers, for the majority of the exhibitors managed to have incorporated in their exhibits examples of both movement and light. Transparencies, flaming gas burners, the mellow glow of fireplace heating units, models of equipment in operation, all vie with each other to catch the eye of the convention visitor. Other booths rely on the glitter of light on copper and brass and nickle or the glare of white or red enamel to draw the attention of the gas men.

Glittering valves and parts are displayed against neutral backgrounds in conventional designs, while a maze of heat coils, pipes and valves and wheels bewilder the beholder who may be without technical knowledge. Ranges, varying in size from the smallest of home affairs to mammoth hotel and restaurant gas stoves and bearing all of the improvements and appliances that a modern and progressive industry can offer, heating appliances ranging from the smallest room-warmer to house and hotel gas-fired boilers send forth their rays of heat to catch the attention of the passerby. The 1925 Gas Association Convention is a lesson, not only in the latest gas equipment, but in merchandising. The exhibitors have seemingly spared no effort or expense to make their products attractive.

FINANCIAL SIDE

The financial side of the industry is far from neglected. The most forward-looking and efficient systems of cost-accounting and billing are displayed very carefully through the efforts of

F. W. Fisher
Rochester Gas & Electric Co., Rochester, N. Y.

the Accounting Section Committee. An experiment has been tried which has probably never before been attempted in a convention of any kind, and certainly never before in a gas convention. The actual billing and accounting for the Camden district is being conducted in its complete details on the stage of the exhibition hall. A model office has been laid out and the proper equipment furnished, so that gas men from all over the country can see the newest accounting methods. An exhibit of store room accounting methods, a display of sixteen transparencies showing the accounting sys-

tem, billing machines in operation, all of the forms used, and an exhibit of production cost accounting complete this section, which takes up an entire end of the hall. This last exhibit illustrates a paper which will be given on Tuesday afternoon, called the "Standardization of Questionnaires."

COMFORT IS EMPHASIZED

The amount of space covered has so greatly increased that the three immense halls just hold the exhibitions. Comfortable chairs, attractive rugs and an abundance of potted plants add to the effectiveness of the individual booths. Scarcely an exhibitor there has failed to bring along dozens of pictures in varying sizes illustrating various phases of his manufacturing and the backs of the booths are covered with these photographs, showing every aspect of the gas and associated industries and furnishing in themselves a very adequate history of the industry.

All in all, the 1925 exhibition of the American Gas Association is not only very interesting in the products shown, but is very well staged.

New Gas Tank Like Huge Steel Bubble

A hollow steel ball nearly sixty feet in diameter has recently been built by a western gas company to serve as a gas tank, on the theory that for a given surface area a sphere has a larger capacity than any other shape.

The new tank, which looks like a balloon on the point of rising from the ground, will hold 300,000 cubic feet of gas. It does not expand and contract as does the usual gas holder. Instead, the gas is put in under a pressure of fifty pounds to the square inch, and as the gas is drawn off, additional gas is pumped in to maintain the requisite pressure.

Encouraging Conditions In The Canadian Gas Industry

Lage Extension Being Made In Canadian Gas Companies

It is very gratifying indeed to learn of the improved business conditions in the Canadian gas industry and to note the many extensions being made by the gas companies of Canada in order to keep up with the increased demands being made by people for gas in the cities and towns of the country.

According to G. W. Allen, Secretary of the Canadian Gas Association, the people of Canada are awakening to the wonderful possibilities and advantages of gas fuel, and are taking more interest than ever in its utilization in industrial and domestic service.

"Many of the Canadian combination gas and electric companies realizing the inherent possibilities of gas as a heat producer, are establishing policies that will place both the electric and gas utilities in that service which will be for the best interests of the general public and incidentally help both industries from an economic

Charles H. Munroe, Chairman Board of Directors, Laclede Gas Light Co., St. Louis, Mo.

G. W. Allen

standpoint. In other words, electrical energy is being strongly advocated for motive power and lighting, while gas is being stressed as the fuel most efficient for all heating operations in home, store or factory."

"In Toronto, Montreal, Vancouver, Victoria, Hamilton and other Canadian cities, it is keeping the local companies busier than ever before, making the necessary extensions to both plants and distribution systems to meet the big demands being made for adequate gas supply.

The sale of gas appliances for both industrial and domestic service is improving in a very encouraging manner. A greater amount of good advertising is being put out, and there is every reason to believe that the people on the whole are beginning to realize the value of gas for heating purposes.

GAS FOR HOUSE HEATING

"Gas for house heating is beginning to take a firm hold in some of the cities, especially in Victoria and Vancouver, B. C., where a large number of homes and public buildings are now heated exclusively with gas.

"Gas as the most logical fuel for hundreds of operations in factories and other business establishments, is growing in public favor, while in domestic service where inadequate gas supply is available, gas fuel holds the premier position, and this notwithstanding remarkably low electric rates.

"Altogether, everything considered, there is every reason why we in Canada should be encouraged as regards the future of the gas industry in Canada, we are almost daily hearing of some gas company in Canada that is advocating further extensions to the local plant, or in other ways planning to take care of the increased demand for gas."

Giant Gas Furnace Heats 2,500 Pounds of Wire

A single gas-fired furnace which heats a ton and a quarter of steel wire at one time has recently been installed in an Eastern wire mill, where it completes the gas-fired equipment by which this fuel is used for every heat process from the incoming steel-rods to the finished wire.

In addition to the giant annealing furnace there are hardening furnaces, bake ovens and a gas-heated trough of molten lead, through which the wire is drawn for tempering. It is found that the use of gas heat reduces scale formed on the steel from nine to two per cent.

Each heating unit in the mill registers its temperature in a central pyrometer room, in which there is also a regulating system whereby the temperature of any unit can be set and automatically held at the point desired.

Dana D. Barnum, President Boston Consolidated Gas Co.

Registration of A. G. A. Members will be printed in two sections in each daily issue of the American Gas Journal. List of Guests registered can be found in Booth 510-B on Steel Pier.

Section I
Registration up to 2 p. m., Oct. 12th

A

Aaron, Charles T.; Battle Creek, Mich.; Traymore
Ahrendt, B. R.; Mansfield, O.; Hotel New Belmont
Alexander, S. H.; Newark, N. J.; Ritz-Carlton
Allen, Geo. W.; Toronto, Ont., Can.; Knickerbocker
Almberg, H. E.; New York City; Traymore
Aithen, Geo. R.; Baltimore, Md.; Traymore
Altick, Jos. G.; Savannah, Ga.; Strand
Anderson, Thomas; Corona, L. I.; Franklin
Apmann, A. M.; New York City; Marl.-Blen.
Arnold, George W.; Baltimore, Md.
Auringer, H. Wm.; Jersey City, N. J.; Haddon Hall
Ayer, J. W.; Mercer, Pa.; Haddon Hall

B

Baehr, W. A.; Chicago, Ill.; Ambassador
Bailey, M. N.; Philadelphia, Pa.; Traymore
Baker, Charles I.; Louisville, Ky.; Traymore
Baker, Lamar; East Orange, N. J.; Haddon Hall
Baker, Perley H.; Everett, Mass.; Chalfonte
Barnes, Albert M.; Cambridge, Mass.; Traymore
Barnitz, Frank R.; New York City; Traymore
Barrows, Geo. S.; Providence, R. I.; Ritz-Carlton
Bartlett, Craig S.; Newark, N. J.; Haddon Hall
Bates, Edmunw E.; Boston, Mass.; Traymore
Bates, Stanley F.; Macon, Ga.; Traymore
Baxter, Edward O.; Yonkers, N. Y.; Seaside
Beebe, F. H.; Fort Wayne, Ind.; Traymore
Beeden, Geo. R.; Bayonne, N. J.; Chalfonte
Behrman, Henry; Brooklyn, N. Y.; Traymore
Biemiller, Lawrence E.; Baltimore, Md.; Dennis
Bigelow, Lucius S.; Buffalo, N. Y.; Haddon Hall
Bird, Eugene Hunt; Pittsburgh, Pa.; Traymore
Blackwell, Edwin G.; New York City; Haddon Hall
Blauvelt, Warren S.; Terre Haute, Ind.; Traymore
Bonner, John J.; Gloucester, N. J.; Knickerbocker
Bowly, Harry H.; Newark, N. J.; Marl.-Blen.
Brayer, Arthur N.; Rochester, N. Y.; Marl.-Blen.
Brill, A. P.; Pittsburgh, Pa.; Traymore
Brown, James A.; Jackson, Mich.; Ambassador.
Brown, John Carey; Laclede, Mo.; Chalfonte
Brownell, H. R.; Detroit, Mich.; Traymore
Bruder, Julius; Albany, N. Y.; Traymore
Brundrett, E. L.; Philadelphia, Pa.; Brighton
Bryant, C. L.; Cleveland, O.; Ritz-Carlton
Buerkle, W. A.; Brooklyn, N. Y.; Traymore

C

Cadmus, Wm. H.; Bloomfield, N. J.; Morton
Cadwallader, F. D.; Brookline, Mass.; Chalfonte
Calkins, B.; Guest; New York City; Chalfonte
Cameron, Reid A.; Chicago, Ill.; Marlborough-Blen.
Caniff, R. J.; Poughkeepsie, N. Y.; Haddon Hall
Chandler, Harry P.; Elizabeth, N. J.; Haddon Hall
Capen, Frank F.; East Boston, Mass.; Breakers
Castor, W. A.; Philadelphia, Pa., Seaside
Christmas, Henry N.; New York City; Haddon Hall
Clark, Edwin A.; West Roxbury, Mass.; Traymore
Clark, W. J.; Yonkers, N. Y.; Traymore
Clark, J. C. D.; Boston, Mass.; Haddon Hall
Clifford, T. C.; Pittsburgh, Pa.; Haddon Hall
Clinton, DeWitt; Worchester, Mass.; Haddon Hall
Cole, Geo. M.; Plattsburgh, N. Y.; Ambassador
Conover, John L., Jr.; Newark, N. J.; Haddon Hall
Cottle, Henry F.; Allston, Mass.; Elberon
Crawford, R. P.; Doylestown, Pa.; Traymore
Cremer, Geo. S.; Brooklyn, N. Y.; Haddon Hall
Cressler, Geo. H.; Cincinnati, Ohio; Traymore
Creviston, A. E.; Baltimore, Md.; Traymore
Crouch, Walter D.; New York City; Strand
Crowell, Jas. K.; Yonkers, N. Y.; Traymore
Curren, Sidney, Newark, N. J.; Haddon Hall

D

Davidson, A. E.; Newark, N. J.; Morton
Davidson, H. C.; New York, N. Y.; Traymore
Dearborn, W. O.; Yonkers, N. Y.; Fredonia
De Frese, S. E.; Rome, Ga.; Traymore
DeLoid, Geo. E.; Taunton, Mass.; Leedom
Dillon, E. P.; New York City; Dennis
Dodge, Harry H.; Troy, N. Y.; Franklin
Doering, Henry A.; Yonkers, N. Y.; Traymore
Doull, R. S.; New York City; Haddon Hall
Downe, Edward R.; New York City; Traymore
Duggan, F. P.; Lewistown, Pa.; Dennis
Dunkley, Wm. A.; Memphis, Tenn.; Breakers

E

Ehlers, W. A.; New York, N. Y.; Haddon Hall
Elgenbroth, John L.; Lowell, Mass.; Chalfonte
Ellis, S. S.; Crosswicks, N. J.; Haddon Hall

F

Ford, Waldo; Lima, Ohio; Traymore
Fitzgerald, Leonard; Gary, Ind.; Breakers
Foster, F. H.; Chicago, Ill.; Traymore
Fowler, Walter M.; Philadelphia, Pa; Haddon Hall
French, C. H.; New York City; Chalfonte

G

Ganser, H. H.; Norristown, Pa.; Marl.-Blen.
Gebhart, Geo. G.; Cleveland, Ohio; Breakers
Geddes, John W.; Boston, Mass.; Traymore
Griffiths, Norman J.; Brooklyn, N. Y.; Haddon Hall
Grow, Chas. N.; Los Angeles, Calif.; Traymore

H

Hall, Robert E.; New York, N. Y.; Traymore
Hallett, Wm. L.; Boston, Mass.; Brighton
Halsey, Wm. M.; Newark, N. J.; Marl.-Blen.
Hamilton, D. M.; Detroit, Mich.; Traymore
Hamilton, Paul H.; Cleveland, Ohio; Traymore
Harriman, B. D.; Goldsboro, N. C.; Breakers
Hatten, Frank W.; New York, N. Y.; Strand
Hayward, H. A.; Long Island City, L. I.; Traymore
Hibbs, Weston J.; Phila., Pa.; Marlborough-Blen.
Humm, Albert W.; New York City; Chalfonte

J

Jaques, C. F.; Aurora, Ill.; Strand
Jesper, H. R.; Brooklyn, N. Y.; Haddon Hall
Johnson, Jesse L.; Providence, R. I.; Haddon Hall

K

Kahle, R. L.; St. Louis, Mo.; Traymore
Kennedy, Jas. S.; New York City; Chalfonte
Kerr, Harry E.; Cleveland, Ohio; Breakers
Kidd, J. H. Y.; Poughkeepsie, N. Y.; Haddon Hall
King, Thomson; Pittsburgh, Pa.; Strand
Klees, A. L.; New York, N. Y.; Knickerbocker
Klein, Alfred K.; New York, N. Y.; Traymore
Krausse, Chas. C.; Baltimore, Md.; Dennis

L

Lawson, L. F.; Pittsburgh, Pa.; Traymore
Lebedjeff, V. V.; New York, N. Y.; Marl.-Blen.
Leins, O. J.; Milwaukee, Wis.; Traymore
Lemke, F. A.; Kalamazoo, Mich.; Traymore
Leuchtenberg, Wm. E.; New York; Ambassador
Long, H. J.; New Brunswick, N. J.; Strand
Luthe, Julius K.; Milwaukee, Wis.; Traymore

M

Magee, S. J.; New York City; Ambassador
Major, Jr., W. A.; Palmyra, N. J.; Haddon Hall
Maurer, R. H.; New York City; Marlborough-Blen.
McNary, John B.; Hamilton, Ont., Can.; Seaside
Mange, J. I.; New York City; Traymore
Mehrman, John; Elizabeth, N. J.; Knickerbocker
Mentzer, H. G.; Chicago, Ill.; Traymore
Mittler, Lee B.; Los Angeles, Calif.; Traymore
Mills, William E.; Providence, R. I.
Moore, L. L.; Philadelphia, Pa.; Traymore
Morehead, Jr., I. H.; Atlanta, Ga.; Traymore
Morrow, Clarence H.; Cleveland, Ohio; Breakers
Moses, Frank D.; Trenton, N. J.; Strand
Myer, Clinton D.; Arlington, N. J.; Haddon Hall
Myers, W. H.; New York City; Traymore

N

Nettles, Rosco; Tampa, Fla.; Traymore
Norrington, W. H.; New York City; Traymore
Norton, Arthur E.; Boston, Mass.; Traymore

O

O'Down, H. W.; Jersey City, N. J.; Chalfonte
Osterman, P. C.; Elizabeth, N. J.; Strand

P

Payne, T. P.; Brooklyn, N. Y.; Haddon Hall
Payne, Paul T.; Indianapolis, Ind.; Marl.-Blen.
Peck, John V.; Detroit, Mich.; Traymore
Porter, Horace C.; Philadelphia, Pa.; Traymore
Printz, Chas. H.; Cleveland. Ohio; Shelburne

R

Rachemacher, August; New York City; Traymore
Ramsburg, C. J.; Pittsburgh, Pa.; Marl.-Blen.
Ramsey, John J.; New York City; Continental
Rasch, Wm. T.; New York City
Ratcliff, T. C.; Baltimore, Md.; Traymore
Rawlings, Howard C.; Milwaukee, Wis.; Traymore
Reinicker, C. E.; Philadelphia, Pa.; Chalfonte
Richards, V. L.; Newark, N. J.; Franklin
Roberts, Earl W.; Detroit, Mich.; Traymore
Robertshaw, G. A.; Youngwood, Pa.; Haddon Hall
Romaine, H. S.; Flushing, N. Y.; Chalfonte
Rosa, John M.; Newark, N. J.; Haddon Hall

S

Sackett, James A.; New York City; Chalfonte
Sands, Joseph M.; Cleveland, Ohio; Traymore
Schall, Henry D.; New York City; Traymore
Schoenberger, W. J.; Cleveland, Ohio; Ritz-Carlton
Schmidt, Jr., Wm.; Baltimore, Md.; Traymore
Seidman, Leon; New York City; Wiltshire
Sellman, Nils T.; New York City; Traymore
Shear, Chester A.; New York City; Chalfonte
Simler, O. P.; Louisville, Ky.; Traymore
Slattery, J. B.; Brooklyn, N. Y.; Shelburne
Smith, Chas. F.; New York City; Breakers
Smith, Dorsey R.; Baltimore, Md.; Traymore
Sovik, R. A.; Poughkeepsie, N. Y.; Haddon Hall
Smith, Arthur F.; Boston, Mass.; Haddon Hall
Smith, Geo. H.; New York City; Haddon Hall
Smith, Wm. P.; Brooklyn, N. Y.; Strand
Spear, M. H.; Flushing, N. Y.; Haddon Hal l
Steinwedell, W. E.; Cleveland, Oohio; Traymore
Stephenson, H. R.; Sioux City, Ia.; Traymore
Stevens, Chas. W.; Columbus, Ohio; Chalfonte
Stevens, E. M.; Columbus, Ohio; Chalfone
Stevens, F. E.; Columbus, Ohio; Chalfonte
Stotz, Louis; New York City; Traymore
Swann, Ada Bessie; Newark, N. J.; Haddon Hall
Sweatt, Chas.; Minneapolis, Minn.; Traymore

T

Tansey, Frank D.; Brooklyn, N. Y.; Haddon Hall
Taylor, Joseph D.; Boston, Mass.; Traymore
Traugott, J. M.; Philadelphia, Pa.; Traymore
Traver, Alva F.; New York City; Ambassador
Trew, Arthur S.; Detroit, Mich.; Strand

V

Vincent, G. I.; Syracuse, N. Y.; Breakers

W

Wallace, R. A.; Quebec, Can.; Seaside
Ward, Jr., Wm. E.; Jersey City, N. J.; Morton
Warren, P. D.; Chicago, Ill.; Ambassador
Weaver, Elmer R.; Washington, D. C.; Fredonia
Welis, R. D.; Royersford, Pa.; St. Charles
Weston, John A.; Detroit, Mich.; Traymore
Wetzel, C. E.; Philadelphia, Pa.; Chalfonte
Wharton, Frank D.; Syracuse, N. Y.; Traymore
Whitelaw, H. Leigh; New York City
Whitwell, George E.; Chicago, Ill.; Traymore
Wilkinson, Z. C.; Warren, Ohio; Traymore
Wiberley, George; New York City; Chalfonte
Williard, H. A.; Washington, D. C.; Haddon Hall
Wilmoth, Russell W.; Sharples, W. Va.; Traymore
Wilson, H. A.; Newark, N. J.; Haddon Hall
Winters, A. C.; Chicago, Ill.; Ambassador
Witherby, Edwin E.; Boston, Mass.; Traymore

Y

Young, D. J.; Tacoma, Washington; Traymore

Z

Zinke, F. J.; Louisville, Ky.; Traymore

Section II

Registration from 2 p. m. to 5 p. m., Oct. 12th

A

Abell, H. C.; New York City; Traymore
Adams, Frank H.; New York City; Traymore
Adams, Larmour; Erie, Pa.; Traymore
Adams, Henry C.; Pittsburgh, Pa.; Traymore
Adams, Leonard G.; Dixon, Ill.; Knickerbocker
Allen, Walter S.; Baltimore, Md.; Traymore
Allington, John B.; Rochester, N. Y.; Strand
Alrich, Herbert W.; New York City; Marl.-Blen.
Ammerman, Ray; Jenkintown, Pa.; Haddon Hall
Anderson, Arthur H.; Detroit, Mich.; Breakers
Andrew, Harold O.; New York City; Chalfonte
Armstrong, H. V.; Sioux Falls, S. D.; Traymore
Arnold, G. M.; Chicago, Ill.; Traymore
Asendorf, Carl F.; Chicago, Ill.; Traymore

B

Babcock, Leon Francis; New York City
Babbitt, Jr., R. H.; Taunton, Mass.; Dennis
Baechle, Edward J.; Cincinnati, O.; Dennis
Bahr, Conrad C.; New York City; St. Charles
Bahret, Clarence A.; Defiance, Ohio; Traymore
Bailey, Jr., E. P.; Cleveland, Ohio; Traymore
Bartel, Emil J.; Brooklyn, N. Y.; Strand
Barker, Wm. S.; Newark, N. J.; Haddon Hall
Barthold, W. H.; New York City; Ambassador
Baumann, Ferd. L.; New York, N. Y.; Traymore
Bauer, E. H.; Worchester, Mass.; Traymore
Baurhyte, Wm.; Los Angeles, Calif.; Traymore
Basquin, E. E.; New York City; Marl.-Blen.
Bates, Harry E.; Chicago, Ill.; Ambassador
Benner, Thomas B.; Philadelphia, Pa.; Belmont
Bennett, Miss May; Cleveland, Oohno; Strand
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Carbonization and Complete Gasification of Coal*

Report of 1925 Committee

A. M. Beebee
Chairman, Rochester Gas & Electric Co., Rochester, N. Y.

Operators' Section

General outline of work for this year.

With the ever increasing eventual acuteness of the oil situation and the resulting general tendency to swing back into coal carbonization as a means for gas production, it would seem that no greater service could be provided by a committee such as the Operators' Section than a study of the various types of modern carbonizing units. With this in mind, the following was adopted:

1. A study of the relative characteristics of the modern types of carbonizing units.
2. A study of the various characteristics of the real major product, the resultant coke.

Such a study should be an aid to a prospective plant purchaser to more intelligently select a plant to meet his particular local conditions, both as to the type of the plant and the characteristics of the coke more suitable to his available market.

Carbonizing Plant Tests

Comparison between types of plants in the past has been a source of considerable argument back and forth, for the reason that little in the way of a comparison was possible, due to the many variables encountered. However, in this combination it was possible to standardize on one quality of coal, in plants of all new design and construction, so that it was quite possible to make the only real variable the type of plant.

The test code under these conditions, with careful and competent supervision, should be able to give an indication of the major fundamental characteristics of the type of plant tested. This seems especially so since two plants of each type are to be tested, so as to provide a check on each other, in case unusual characteristics one way or another show up.

Conduction of Tests

In conducting the tests no effort is being made to determine which plant is the most efficient, as such is a most involved subject and of questionable solution. It is an effort, however, to find out where the B.t.u.'s come in and what becomes of them, in other words, a heat balance. It is then up to each individual to determine how these various characteristics as regards B.t.u. distribution and other tendencies fit in best with his particular local condition. What may be called "more efficient" for one set of conditions may be entirely wrong in another location, depending on the form in which the B.t.u.'s are most valuable.

*To be delivered at the Tuesday meeting of the Technical Section, A. G. A. Convention, Atlantic City, October 13, 1925.

Study of the Coke Characteristics

A carbonizing plant is primarily a coke producing plant, and to date at least little research has been brought out as to the relative characteristics of the resultant cokes from these various types of plants. Considerable research has been carried on in this country and abroad concerning the characteristics of coke from blended coals from various types of coals, etc., but practically nothing along the line of a given coal in various types of plants.

Operating experience in this country, particularly in water gas operation, has frequently shown that cokes possess wide ranges of characteristics. Experience in England with the use of coke in the open fireplaces has probably more clearly brought out that various cokes have wider ranges of characteristics than might at first be realized, particularly as regards reactivity or combustibility when applied in their field of use.

Characteristics to Be Studied

The characteristics of coke that will be studied will include the following:

1. A study of the relative rate of reactivity under various conditions, such as in a water gas machine, producer, and a domestic furnace. Likewise while conducting these tests a study of the same characteristics of anthracite and other standard fuels would be of value in determining the value of coke in competition with other fuels.

Reactivity of Coke

Below are some points explaining the situation as to why we might be interested in the reactivity of coke, some of which were recently outlined in a translated article by Dr. Karl Schwalbe in the May 23rd, 1925, issue of the American Gas Journal.

The technical importance of realizing that different cokes, prepared in different ways, may possess different degrees of reactivity, cannot be over-estimated. Thus, for example, in the blast furnace two reversible reactions can take place. One is concerned with the reduction of carbonic acid gas to carbon monoxide, according to the equation $CO2+C=2CO$. The other is concerned with the reduction of iron oxide by means of carbon monoxide to metallic iron, which takes places according to the equation iron oxide + CO = Metallic iron + CO2. The more rapid the conversion of carbon dioxide into carbon monoxide, the more effective would be the reduction of the iron ore, to the state of metallic iron. Hence the coke which possesses the highest degree of reactivity it would seem would be the best for this purpose.

The Water Gas Process

The difference that might exist between highly reactive coke and low reactive coke can probably be best told from the nature of the reactions that take place in the water gas generator. When low reactive coke is used in the process and the blast is turned on through the generator, a similar condition would be expected as that which is found in the case of the cupola furnace. The coke should burn to give carbon dioxide gas, with very little reduction of carbon dioxide to carbon monoxide. In other words, a large amount of heat is desired at a high rate of speed. Hence in the blast process it would seem that the less reactive coke would be superior to the more reactive coke. On the other hand, in the gasification process the slighter reactivity of the slower coke must be compensated for by a reduction in the speed at which steam is blown through the water gas generator. It is for this reason that when metallurgical coke is being used in the water gas, in order to obtain correct results in the gasification, it would be expected that it would be necessary to maintain short blowing periods and long gasification periods. It would be apt to cause good yields of gas per weight of coke employed with a reduced hourly capacity on the apparatus because of the necessarily lower speed at which the steam is blown through the apparatus.

Study of Reactivity Important

The above points are brought out to show why a study of reactivity may be most worth while to our industry. The points made are not necessarily at present writing proven facts, and therefore should not be construed as such simply because they are a part of our official report. They are used solely for explanation of the points involved.

Most of the past research work which has been done on reactivity of coke has been carried out on samples of coke pulverized and subjected to various temperatures in laboratory apparatus to various gases, particularly steam and oxygen, and the rates of combination determined. In this manner coke structure is largely destroyed. In our work it is proposed to use small sizes of coke in an experimental furnace and producer, so as not to destroy the coke structure actually used in practice.

Coke Produced

A study of the relative amounts of the various sizes of coke produced is to be made so that a prospective purchaser could tell approximately the amount of the various sizes he would have available to meet his market. If he is interested in a domestic market it would indicate how much crushing would be necessary. This is more important than might at first be realized, as crushing not only is expensive because of the maintenance of the crushing equipment, but also is expensive because of the large degradation of the coke which invariably results. Tests on crushing of these large sizes of coke with the amount of the resultant breeze production from crushing will also be carried out in order to determine how these various cokes withstand crushing without excessive breeze production.

Method of Accomplishment

Therefore if the above studies were carefully and intelligently made on a standard quality coal it would seem that a vast amount of worth-while data would be the result. To this end we have been very fortunate in being able to secure the co-operation of the Bureau of Mines and the Massachusetts Institute of Technology to supervise under the chairman of the Operators' Section the various tests and in addition to carry out the study of the resultant coke.

The progress to date on this work will be reported later in this report by the chairman of the Operators' Section, Mr. D. W. Wilson.

Operating Service Bureau

The Operators' Section necessarily must consist of representatives of operators of all types of carbonizing units, who have had more or less experience. As such it should be in a position to give the benefit of its experiences to any member of the association seeking advice on any particular problem. Therefore this year an "Operating Service Bureau" has been developed which will be described in detail later in the report by the sub-chairman, Mr. W. S. Stewart, with the idea of providing a Service Bureau the year around where an operator can secure without publicity the general consensus of opinion of a group of experienced operators on any problem, without being caused the embarrassment of having to speak from a convention floor, which also is only available once a year.

The Low Temperature and Complete Gasification Section

The committee work will consist of a general survey of what has progressed along these lines during the past year and is reported by Mr. A. W. Warner.

Builders' Section

This committee will report as usual the progress in the builders' line.

General

The Carbonization Committee also has been fortunate in securing a number of papers as part of its report, which follow:

"Rate of Travel of Fusion Zone in Coke Ovens," Professor Ryan, Massachusetts Institute of Technology.

"Carbonization of Non-Coking Coals," W. W. Odell, Bureau of Mines.

"Comparative Analysis of High and Low Temperature Tars, Now Being Produced on Semi-Commercial Scale," J. D. Davis, Bureau of Mines.

"Domestic Coke and Factors Affecting Coke Formation," J. D. Davis, Bureau of Mines.

The committee also appointed a sub-committee under the chairmanship of Mr. F. D. Lohr, of the Seaboard By-Product Coke Company, to co-operate with Mr. A. I. Phillips in providing necessary operating data for the revision of the Catechism of Central Station Gas Engineering Practice.

Conclusion

The chairman of this committee wishes to take this opportunity to thank those with whom he is fortunate enough to have been associated in this committee work, for the most excellent co-operation which he has received in making possible this very extensive program. Considerable credit is due Mr. D. W. Wilson for his willingness in carrying on his arduous part of this rather involved program. Considerable credit is also due Professor R. T. Haslam of Massachusetts Institute of Technology and Dr. A. C. Fieldner of the Bureau of Mines for their very fine co-operation in making this work possible through their own personal efforts and the facilities of their offices. It is only to be regretted that the results of this study are not available in time for the convention. They will, however, be reported in the near future in the American Gas Association Monthly.

It is with extreme sorrow that we again recall the tragic death of two of our committee members during this past year, Vernon Baker, chairman of the Builders' Section of our committee, and John Hawley Taussig, one of our ablest and most lovable friends. Both will be sorely missed by the industry and by us all personally. Suitably engraved resolutions were forwarded to both bereaved families.

Report of Operators' Section

D. W. Wilson
Chairman, Iroquois Gas Corporation, Buffalo, N. Y.

As outlined by the committee chairman, the work of this year's Operators' Section divides naturally into the following:

1. A study of the relative operating characteristics of the so-called modern types of carbonizing units.

2. A study of the various characteristics of the real major carbonizing plant product, that is—coke.

When originally planned, the program for the 1925 Operators' Section was not as extensive as it has actually proved to be, with the result that the report given here is one of progress only, is highly incomplete and includes no results or conclusions. Moreover, this report is concerned only with the status of the various tests and investigations of this subcommittee up to July 1, 1925, and does not include any developments since that date.

Acknowledgments

Grateful acknowledgments should be made here especially to Prof. J. T. Ward of the Massachusetts Institute of Technology, who has not only assumed the direct charge of the operation of the Lowell test, but also was instrumental in planning many parts of the work at the other plants, and who has offered to do a considerable part of the somewhat arduous job of averaging and calculating the results obtained from many of the plant tests. It is also a pleasure to acknowledge the invaluable assistance obtained from Prof. R. T. Haslam of the Massachusetts Institute of Technology, Mr. A. C. Fieldner of the Bureau of Mines, also the many operating executives at the various plants other than those specifically mentioned above.

Following is the description of the study of the cokes from the plant tests which is to be carried out by the Bureau of Mines and Massachusetts Institute of Technology:

A. G. A. Coke Tests

Report of proposed tests by the Bureau of Mines

A. C. Fieldner

The U. S. Bureau of Mines proposes to make thorough tests of the cokes produced by the six plants. The outline of the proposed tests is given in the following, although this may be modified as experience may dictate:

1. Screening Tests. The object of these will be to determine the sizes as produced by the plants, particular attention being devoted to get some expression for the shape naturally produced by the manufacturing operation. As far as possible the standard method being lined up by the A. S. T. M. will be followed. It is recognized that more useful information on this test could be obtained at the plants themselves and it is hoped that this will not be overlooked in connection with the plant tests.

2. Weight of one cubic foot of the various sizes of coke. The method used will follow the latest proposal by the A. S. T. M.

3. Standard shatter test on the uncrushed coke. This test will be the ordinary six-foot drop test as

outlined in the 1924 A. S. T. M Standard, Serial D141-23.

4. Friability test in rotating drum. As far as this test is carried out it will probably be used to obtain some measure of the degradation that a size will suffer in handling between the plant and the purchaser. Generally speaking, the apparatus and method described in the paper by Kinney and Perrot in the J. of I. & E. Chem., vol. 14, No. 10, p. 926, October, 1922, will be followed. Some further effort may be made to connect these results with the shatter test.

5. Complete chemical analysis and B.t.u. determination. These tests will be standard and made on average samples as well as samples of the various screened sizes.

Fusibility of ash. This will be on several samples of the average ash and also some tests to determine whether the ash in the coke breeze tends to differ from that of the average.

True and apparent specific gravity. These will be carried out according to the A. S. T. M. 1924 specification, Serial D167-24. The combination of the two will give the porosity of coke.

6. Chemical combustibility tests. These tests consist in burning a sized coke in a standard furnace and with fixed rates of air supply. Gas analyses are taken at various distances above the grate surface, thus obtaining values for the rate of combustion as against distances of air travel. These tests will be compared with ones made previously, thus classifying the cokes on the same scale.

7. Water absorbing and retaining properties of coke. The object of these tests will be to obtain some measure of the amount of moisture that may be expected in a coke under fixed sets of conditions. Such information is useful both for individual pieces and for piles. In practice such values are necessarily connected with the rate of drying under natural conditions. There are no standards for such tests and it is proposed to do some work towards establishing a standard set of test conditions which will indicate the amount of moisture that cokes may contain if stored in the open and exposed to natural weather conditions.

8. Relative values of cokes for house-heating furnaces. These tests will be so conducted as to eliminate the boiler conditions and to obtain relative burning characteristics of the fuel bed, independent of the boiler, when the coke is burned under house boiler conditions of firing and attendance.

Also the test shall include a measure of the relative ignitibility under the same conditions.

9. Chemical reactivity or ignitibility. These tests will be on powdered samples of the coke in order to determine these characteristics independent of the shape and size of the pieces.

10. Resistance to air flow in fuel beds of different sizes of coke. These tests, as far as they are made, will be intended to supplement test No. 8 in order to determine the resistance to air flow of the coke in terms of the space that they occupy. They will not be made under burning conditions and therefore will not include the degradation or ash resistance.

11. The investigation as outlined above may develop the need for further research and as far as it may be advantageous to make such determinations this will be done.

Low Temperature and Complete Gasification Section

Report of Committee

A. W. Warner

Chairman, Philadelphia Suburban Gas & Electric Company, Chester, Pa.

The report of last year's committee, "Future Prospects of Low Temperature Carbonization," by Prof. S. W. Parr, will bear a careful re-reading. Although experiments carrying out low temperature theories are constantly widening our field of vision and much mechanical progress has been made with semi-commercial and test apparatus looking to the economic utilization of these theories, nothing, to our knowledge, has been brought forth to date on a commercial scale warranting a place in our report.

To those closely following this work, the theories of low temperature distillation reactions appear to have outstripped the development of the mechanical art. Many of the more promising developments seem to lie between the art of oil distillation and coal carbonization proper.

As a result, adaptations of either oil stills or existing commercial retorts to low temperature distillation of coal have fallen short of the ideals sought. A few inventors have attacked the mechanical problems with adequate theoretical knowledge and as a result of their experiments and costly experience have developed some fascinating low temperature possibilities. On the other hand, many theorists, it would seem from a glance at the patent files, have erred because of a lack of mechanical experience.

In reviewing proposed low temperature processes for treating coal a startling array of conceptions confronts us. Some investigators are striving for oil and domestic fuel, with no thought of utilizing the rich gases for purposes other than carrying on the

process; some are striving for oil, coke and a large yield of lean gas—part for carrying on the process and part for industrial uses; while still others are striving for gas, oil and smokeless fuel from non-coking coals. Many of these processes promise to materially widen the range of coking coals. Some investigators pin their faith on internal heating entirely; some on a combination of both internal and external heating; while still others depend upon external heating. Some investigators favor two-stage carbonization; some two successive stages in one process; while still others are content with a single stage. This limited enumeration of various conceptions will suffice to recall to mind how varied must be the ways and means of making use of the complex reactions of distillation of oils and gases within the carbonizing mass of coal and the control of their possible exit paths from the moment of vaporization.

When the economics of low temperature carbonization are demonstrated and put to use, the gas manufacturer will be interested, as far as it affects his present practices in two phases—the substitution of lean gas for carrying on the process so as to release the high B.t.u. gas for distribution, and the marketable domestic fuel. Both gaseous and solid fuel will become more and more his province. His attitude seems to have gradually changed from downright scepticism to a feeling that some time some investigator will reach an economic answer to this problem of low temperature carbonization. To date he feels there is nothing in sight to warrant any change in plans for expansion of his more conservative high temperature methods, for he can at least make room for a successful process as an auxiliary to his existing plant.

Operating Service Bureau

W. D. Stewart

Chairman, Coal Products Mfg. Co., Aurora, Ill.

In the May issue of the American Gas Association Monthly, this committee offered its assistance to the members of the association in solving their carbonization operating problems. This offer was made with a genuine desire to help the operators of carbonization plants throughout the country. It was felt that the experience of a group of men supervising in all parts of the country all types of carbonization equipment could not help but be of assistance to men who are confronted with similar problems, and who would be unable to get in touch with each member of the committee personally. Therefore, the idea was developed of providing a Service Bureau the year around where an operator can secure without publicity the general consensus of opinion of a group of experienced operators on any problem.

The results to date have not been encouraging, but we trust that all members of the association who have problems in connection with the operation of carbonization plants will not hesitate to freely get in touch with the Carbonization Committee. The name of the person inquiring is to be kept strictly confidential by the secretary of the Technical Section, Mr. Hartman, who will forward the question without the name of the inquirer to the members of the committee, who will be pleased to give the benefit of their experiences to all members of the association who operate carbonization plants.

Fusion Zone in Coke Ovens

William P. Ryan

Director of the Buffalo Station, School of Chemical Engineering Practice, Mass. Institute of Technology

Summary

Data have been presented which show that the thermal conductivity of coke is much higher than that of coal in the various stages of carbonization.

It also appears that either the thermal conductivity of the coal as charged does not change in order of magnitude upon fusion and conversion to semi-coke, or that any thermal change is remarkably balanced by compensating changes which offset it.

From the above it follows that the heat of fusion and thermal decomposition is negligible in effect on the rate of heating of the coal.

The change in rate of travel of the fusion zone has been shown and explained by the concept of heat transfer.

The reason for the influence of oven width on coking time and daily capacity has been illustrated by means of the rate of travel of the fusion zone.

Acknowledgment

The author wishes to acknowledge his indebtedness to the many students of the School of Chemical Engineering Practice who have contributed data presented in this paper—especially to Messrs. J. B. Carpenter, Jr., P. B. Holden and W. K. Schweitzer.

Dr. W. I. Lewis and Prof. R. T. Haslom, of the Massachusetts Institute of Technology, have given valuable assistance by criticisms and suggestions.

These investigations have frequently necessitated interruptions in coke oven operation, but the officials of the Coke Oven Division, Lackawanna Plant, Bethlehem Steel Co., especially Mr. A. H. Harris, superintendent, and Mr. J. M. Stryker, assistant superintendent, have ever shown a kindly and helpful interest in the work.

Carbonization of Non-coking Coals *

With particular reference to lignite

William Odell

U. S. Bureau of Mines, Minneapolis, Minn.

The cost of the finished product, briquets, will vary according to location, cost of raw coal and binder, yield of char, etc. Briquets made from lignite char—the lignite costing $1.50 per ton—will cost $7 to $8 per ton, according to conditions and size of plant. All of the details cannot be presented here, but the important conclusions are:

Conclusions

1. A char of high calorific value can be readily produced from lignite—a low grade fuel—by carbonization, in a simple shaft carbonizer internally heated, with high thermal efficiency.

2. The char so produced having a heating value approximately equal to anthracite coal can be burned satisfactorily on grates designed for use with fine sizes of fuel.

3. The char may be readily briquetted into a high grade domestic fuel, the equal of anthracite.

4. Gas, tar and ammonia can be recovered as by-products. The tar yields a pitch suitable for briquetting purposes, although not enough can be produced in the carbonizing process to briquet all of the char produced. The gas, though of low heating value, is sufficient to furnish heat and power for the carbonizing and briquetting operations.

5. One means of beneficiating fuels and preparing a substantially smokeless fuel which may have an important bearing upon the solution of the smoke problem has been developed. It is believed that the same general method can be employed in treating fuels other than lignite discussed above.

*Published with the permission of the Director of the Bureau of Mines. This paper is largely a partial extract of a forthcoming Bulletin of Bureau of Mines, by O. P. Hood and William W. Odell, reporting the results of the bureau's lignite investigations.

Low Temperature Tars [1]

The composition of some of them

J. D. Davis [2] and A. E. Galloway [3]

Conclusion

In the analysis of the results one is not justified in attaching significance to small differences in character of the tars, because the coals differed somewhat in rank, and furthermore, the conditions under which the tars were condensed were subject to considerable variation. In general, it may be said, however, that there is little variation in the character of the tars with temperature provided this is within the low-temperature carbonization range (475 to 700 degrees C.). The total tar oils distillable varied from 65 to 78 per cent; the total tops distillable to under atmospheric pressure varied from 30 to 47 per cent; the boiling ranges lie close together. As regards the composition of the tops, the tar acid content varied from 30 to 46 per cent, unsaturated compounds from 39 to 54 per cent, and sulphonation residue from 6 to 21 per cent. But none of these variations can be correlated with temperature variations

[1] Published with approval of the Director, U. S. Bureau of Mines.

[2] Chemist, Pittsburgh Experiment Station, U. S. Bureau of Mines.

[3] Junior Chemist, Pittsburgh Experiment Station, U. S. Bureau of Mines.

alone; the yield of tar, however, is lower as the carbonization temperature approaches the upper limit of the range. Variation in time of carbonization does affect the character of the tar, the most pronounced effect is obtained by rapid generation of the tars as where the heat is quickly applied to the coal in thin layers. Tars so generated are characterized by a high yield of very light liquids, high specific gravity, high viscosity, high free carbon, high unsaturation, and low tar acid content. Where the heat is applied at a moderate rate and the tar vapors are quickly removed from the carbonization apparatus, characteristics that are opposite to those above except as regards the total tar acids, which are practically the same. In the latter case the sulphonation residue (paraffins) is high.

The writers believe that the results herein set forth show the limit characteristics to be expected in low-temperature tars produced in quantity from coking coals rich in volatile matter by the best known low-temperature carbonization methods now in use.

Domestic Coke[1]

Factors affecting coke formation

J. D. Davis[2] and L. D. Karrick[3]

Summary

The densest and probably the best coke for domestic heating purposes is produced by high-temperature carbonization methods, and the coals best suited for this purpose are those ordinarily looked upon as coking coals. It is possible to produce dense domestic fuels by low-temperature methods by briquetting before carbonization or by briquetting the carbonized residue. An excellent product can be made by carbonization of briquetted low-temperature coke, but it has not been demonstrated that this method is economically feasible.

The mechanism of coking is discussed. In the light of recent research it seems clear that certain constituents which may be separated from the coal by solvents are responsible for coke cementation and that others likewise separable are responsible for its swelling tendencies. It is believed that a closer study of the properties of these constituents will be of material aid, not only in the selection of coals for coking, but also in plant design.

[1]Published by permission of the Director, U. S. Bureau of Mines.

[2]Chemist, Pittsburgh Experiment Station.

[3]Associate refinery engineer, Pittsburgh Experiment Station.

STUDY OF COKES
Progress Report from the Massachusetts Institute of Technology—Gas and Fuel Engineering
R. T. Haslam

Builders' Section

Report from the Gas Machinery Co., Cleveland, O.
W. E. Steinwedell

"Improved" Horizontal Gas Ovens Built by Improved Equipment Co., New York City
By F. G. Curfman

Report of the Koppers Co., Pittsburgh, Pa.
Harold J. Rose, Pittsburgh, Pa.

Report of Russell Engineering Company
D. B. Sutherland St. Louis, Mo.
(Oven Plant at Quincy, Ill.)

Report of the West Gas Improvement Company, New York City
Glover-West Vertical Retorts—Continuous Type
F. J. Kennedy, New York City

(This report is published here in abstracted form and can be secured in full in the Proceedings of the American Gas Association.—Editor.)

Wholesaling Gas

Organizing a department to sell gas to industry

L. Harvey and H. H. Clark

Illinois Power & Light Corp., Chicago, Ill and the Peoples Gas Light & Coke Company, Chicago, Ill.

EVERY community today offers some available industrial business. The fact that the industrial application of gas is relatively new, however, is one of the reasons why we find so few of our number interested in this phase of our business to the point of being enthusiastic about it. Not only do we find a limited number of gas properties who are actively interested in industrial gas work, but we find, and at times surprisingly close to our doors, manufacturers who have never heard of the application of gas to heating operations similar to theirs.

Desirability of Wholesale Gas Business

Some of the reasons why we should be actively and enthusiastically engaged in securing all possible industrial gas business are that such business is very profitable and that it has a desirable effect on present and future load factors.

Why Business Is Profitable

Industrial gas business is profitable because there is a certain amount of it available which can be obtained with surprisingly small expenditure on the part of the gas company. In these cases, no additional plant labor or plant equipment is necessary, and no additional distribution equipment is necessary; in fact, no expenditure is necessary other than that required for the purchase of the raw materials going into the manufacture of the gas. There can be no question about such business being profitable, and it is a crime not to have it on our lines.

The Effect of Wholesale Gas Business on Load Factors

A study of industrial heating operations will readily disclose the fact that they offer a means of materially increasing our present gas load factors. The annual load factor of the average industrial gas installation generally varies between 40 and 60 per cent, although we often find installations having load factors of close to 100 per cent. Then, too, there are many seasonal uses for our product, an important one of which is the burning of common brick. Common brick burning is now being done very successfully with manufactured city gas and it offers a demand for our product during the summer months only, and therefore offsets the general peak demand of the winter months. Such business not only beneficially affects our present conditions, almost wiping out the valleys and peaks in load curves of today, but it enables us to take on a great deal of other business, the load factor of which might cause some of us to question its desirability; for instance, a gas house-heating load.

The interest of the gas industry in the wholesale marketing of our product is rapidly increasing as a result of the tremendous increased gas sales occurring year after year in a few companies that are actively and enthusiastically pushing this phase of our business. During the year 1924, one of the larger gas companies sold six billion cubic feet of manufactured gas for industrial purposes, or in wholesale quantities. The time is approaching when it will be impossible for any aggressive gas company not to be actively engaged in such work. The authors of this paper feel that there are gas companies today who wish to do more wholesale business than they are now doing, but do not know how. It is hoped that these recommendations may be of some assistance in the organization of successful wholesale departments.

Efforts Required to Obtain Business

Because of the availability and the desirability of wholesale gas business, we must not and cannot lose sight of the fact that we will secure such business only by a strenuous effort on our part to do so. Industry will not come to us and say that if we run our gas mains to their door they will connect their furnaces on and use a few million cu. ft. of our gas a month. To the contrary, however, before hoping to sell gas to a prospect we must get acquainted with him—his men—his plant and his product; we must study and analyze his heating operations, and, finally, we must know his cost per unit of finished product. This is not always easily done. Very often it is possible to determine the cost per unit of finished product, only by running exhaustive tests on heating operations and by analyzing all cost items that enter into the making of a product. We occasionally find it necessary to install gas equipment and completely and carefully test it out before arriving at a comparable figure for gas fuel costs. Such procedure means weeks and sometimes months of persistent and constant effort, and requires, first of all, the undivided attention of trained men to do this work.

*To be read at the Wednesday Meeting of the Industrial Section, A. G. A. Convention, Atlantic City, N. J., October 14, 1925.

Wholesale Departments

Before we can expect to gain any sort of an industrial load, we must, therefore, have industrial gas departments, whose duty it is to secure such business. A department of this kind must be properly organized and must function correctly in order that an industrial load may be secured in as short a time as possible, and satisfactorily maintained. In other words, a successful industrial gas department must be highly effective.

Manager of Wholesale Departments

The manager of a successful industrial gas department must realize his responsibility to the industries that he wishes to serve, to the manufacturer of gas appliances, to his company, and last but not least, to his men. He must remember that, as Emerson says, "The world belongs to the energetic," and that it is his duty to be energetic, full of pep and enthusiasm and to get his men in such a state and keep them there. He must be a sort of an architect, as it were, in that he must know what sort of men he needs to make his department. It is necessary that he understand men well enough to know what to expect from those he would pick for his organization, and be able, in a measure, to make those under him as effective as possible for the particular work they are to do.

Personnel of Departments

The most essential requirement in a department marketing gas in wholesale quantities is highly trained sales engineers. There are no displays of equipment that are of a material help. There can be no show cases or machinery of any kind; everything focuses on human quality. However, it is frequently advantageous to have a place, preferably at the gas works, where demonstrations of the temperatures and a view of the phenomena of gas in combustion can be given to the industrial prospects in your territory who are skeptical as to the ability of gas to produce high temperatures. It is a fact that the making of a successful department of this kind is largely a matter of making successful men. We cannot hope to make successful industrial gas sales engineers out of everyone who comes along.

We must pick our men. Our companies must be interested enough in the success of our undertaking to hire graduate engineers from time to time and place them at work in various departments where they can be under close observation. Such practice would insure the manager of an industrial gas department of having a place from which to pick men, men who would be on a waiting list, as it were, to get into his department. It would enable a manager to use his judgment in selecting the type of men he wanted, thereby doing away with many of the mistakes now made and much of the present excessive cost of securing industrial gas business, primarily because of the poor selection of men. The man power of an industrial department is what sells and makes industrial gas installations. A great deal of time and consideration should, therefore, be given to the selection of men for this work.

Selection of Men

Those who have been in close contact with the wholesale marketing of our product have generally come to the conclusion that technically trained college graduates should be given preference for such work. Other than college graduates, such as gas appliance salesmen, shop men, plant men, etc., have been used, and while they have at times proved more or less successful, such is not the general result. Such men do not generally have sufficient ground work on mechanical processes, combustion, etc., to warrant the time and effort required to make industrial gas sales engineers of them. Frequently, however. an education can be obtained outside of a college, and especially bright men in your organization who are quick to make friends and who have sales ability should not be overlooked in selecting the personnel of your Wholesale Gas Department.

The technically trained college graduate, while he knows very little of industrial gas applications, learns much more quickly than the one who has not had a similar education. The discipline of many years of training and study gives a college graduate much of the ground work needed and goes a long way to prepare one for intensive industrial gas engineering development. Such university studies as gas manufacture, gas and fuel analysis, metallurgical calculations, etc., are invaluable in gas sales engineering work. Consequently we feel that the course in chemical engineering given at some of the universities and larger technical schools offers one the best preliminary training for the work in question that is available.

Sales ability is also an important qualification; in fact, a man may be an exceptionally good engineer, but unless he possesses sales ability, and can convince others of the correctness of his ideas, he will not make a success of gas sales engineering. One of the biggest problems confronting the gas companies today in securing men for industrial gas departments is that of developing salesmanship in men with technical training. Therefore, in the selection of men for your department, their sales ability should be given much consideration.

The desirable man must possess the above qualifications; namely, technical training combined with sales ability, and further he must be enthusiastic, alert and have confidence in himself. He must be a convincing talker, and with all of these qualifications he must be sincere. Such a man can be pleasant and interesting enough to freely gain admission to a prospect—he can make investigations, analyzing his problem and submitting his recommendations in such a way as to convince his prospect that he is correct.

Where to Get Such Men

We feel that the time to get college men is just after they graduate from school. Such men are

more willing to submit to training in your plants and the various departments of your organizations than those who have been out of school for some time. By being brought up in a company, one becomes familiar with the policies and practices of the company he is working for, becoming acquainted with our organizations before much is expected of him.

If it is possible, we think favorably of visiting one or two large institutions of learning before the school year closes and inducing some of the more promising men who are about to graduate to enter the gas business by offering at least a fair salary plus an attractive future to the deserving man.

Training of Men Before Work in Wholesale Departments

The training given men before being actually put to work on industrial prospects depends, of course, on the abilities of the men under consideration. During this training period, the new men are usually called "cadets" or "junior engineers." There are two ways of accomplishing this preliminary training: first, by putting men through industrial gas courses; second, in placing the new men in the various departments of an organization, leaving them there for a long enough time to become familiar with methods and practices used. At times both of these methods can be employed. In all cases of training, however, the new men should be sent out in the field, if at all possible, with men of experience, where they have occasion to receive actual training in meeting customers and prospects, in solving problems and in making sales.

Educational Courses

There have been four short courses on Industrial Gas at the Massachusetts Institute of Technology and one was given in New York in September under the auspices of the Industrial Gas Section of the American Gas Association, and one is to be given next June at the University of Illinois, where men can go and secure much valuable training for this line of work. There are also organizations such as industrial gas engineers' associations which are of value. An association of this kind is now being formed for industrial gas engineers in the Mid-West. This organization will function along the line of "round table" discussions, of actual problems and practices. Such an association will be of more interest and value to engineers who are more or less experienced in such work. It will give one access to the experience of others, and consequently be of benefit to members and to the gas industry in general.

What the Industrial Man Should Know

Some of the things a man should know in order to be a successful industrial engineer are shown below in a suggested outline for educational course for men entering wholesale departments.

Manufacture of Gas

The manufacture of producer, blue, carburetted water, coal and by-product coke oven gas, comparison of composition, flame temperature and efficiency. Average cost of producer and blue gas at the burner when manufactured by the customer in his own plant.

Combustion

Theoretical air required (coal, oil, gas).
Total air required in actual practice.
Heat loss in products of combustion (100 to 3000 degrees).
Influence of excess air and unburned CO in products of combustion.
Application of flue gas analysis to determine ideal operating conditions.

Design of Service and Interior Piping

Method of figuring pipe sizes for air or gas, high or lower pressure, in order to deliver a required volume and pressure.
Effect of excessive pressure drop in house piping (i.e., additional power required for higher initial pressure).

Competitive Fuels

Coal, coke, oil, electricity.
Initial investment, maintenance, operation.
Analysis of utilization costs leading to final cost at furnace.
Comparison with gas on basis of unit cost of production with definite quality of product.

Burners—Atmospheric and Blast (Two Pipe System)

Advantages and limitations.
Methods of application for various operations.
Pipe burners—construction data.
Supplementary equipment for blast.
Suction tees—size required for various air pressures.

Combustion Systems (Providing One Valve Control)

Surface combustion, Selas, Kemp.
Proportional mixers.
Auxiliary equipment.
Advantages of each for specific operations.
Installation and operation.
Work requiring such systems.

Temperature Control

Engelhard, Bristol, Brown, Leeds & Northrup, American Gas Furnace Company.
The importance of installation and maintenance.
Advantages and disadvantages of each for various operations and temperature ranges.

The Application of Gas to:

Solution heating.
Japanning.
Core ovens.
Soft metal.
Heat treating (hardening and tempering).
Annealing.
Carbonizing.
Vitreous enameling.
Brass melting.
Forging and many others.

In addition to knowing all these things, the industrial gas man has an opportunity of obtaining this knowledge from an educational course, to have included with each subject lectures covering pertinent data relative to various methods of application. Also typical installations are visited, and supplemented with laboratory examination of gas burners and auxiliary equipment.

Compensation

We feel that the compensation of men in wholesaling departments should be worked out on a salary and commission basis, which would enable them to earn from $100 to $500 or more a month, depending on the extent of their activities and their ability. The salary part of the compensation should take care of the large amount of missionary work necessary in working up any prospect, depending on local living conditions, say, $100 to $200 a month; and the commission part of the compensation rewarding the sales engineer for his effective efforts.

The Commission

The commission should be sub-divided further into two parts, the sales engineer receiving a reward for the sale of equipment as well as for the sale of gas. The commission on equipment, say 5 per cent, will help to bring about a stronger effort on the part of the sales engineer to sell the very best gas appliances on the market and thus assist in doing away with cheap and makeshift appliances, which are the cause of a great deal of the dissatisfied use of gas that exists at the present time. We would suggest that the commission on equipment be standard throughout an organization.

The commission on gas sales can be based on demand or consumption, but it should be graded, being different in different localities and depending on the availability of the business sought. Somewhere around $5 per million cubic feet of monthly consumption or $2 per 1,000 cubic feet of hourly demand of 50 per cent load factor, to be paid to the salesman each month as long as the account is on the books and as long as the salesman stays with the company and retains the customer as his client. For each 10 per cent increase or decrease in load factor from 50 per cent, a corresponding increase or decrease of 10 per cent should be made in commission.

Division of Territory

The wholesale territory of any gas company should, if of a size requiring more than one man, be divided up into districts. The districts should not contain more prospective wholesale users of gas than one man can become familiar with and properly take care of. Fifteen large industries is all one man can look after, together with such small industrial business that may be in his district. Prospects and consumers should not be neglected, both should be called on systematically, the sales engineer remembering that it is just as much his duty to service installations as it is to sell them, and if a customer is lost his commission on gas sales or demand is reduced proportionately.

Junior engineers or cadets should be assigned to work more or less under a senior engineer, and their territories should more or less overlap. The junior engineer's duties are more of a servicing nature, and consequently his territory need not be based so much on the available business, but rather on the number of consumers he is to look after. The prospects and consumers the junior engineer is assigned to should be in general of the smaller commercial class, which enables the senior engineer to devote most of his time to those larger prospects and consumers in his district, and at the same time coach the junior man on all kinds and classes of work. Juniors should be paid a straight salary of, say, $100 to $200 a month.

Co-operation With Other Departments

The success of any wholesale gas department depends largely on the co-operation it gives to and receives from all other departments within a local organization. In dealing with manufacturing concerns, large contracts may be lost because of poor service, mistakes in meter reading, a mistake in billing, a short interruption in service or the unsatisfactory operation of some minor gas appliance. It is not uncommon to find gas appliances which fail to operate satisfactory simply because of the length and insufficient size of the gas line leading to it. These occurrences can all be eliminated by the proper co-operation between departments. Without exception, the manager of the industrial department and his men should act as a "go-between" in all negotiations between the company and the customer. Any disputes about bills, any complaints, any orders to change meters, any other buisness that the company has to transact with the customer should invariably be done through the industrial department. All employees of an organization must be loyal enough and sufficiently interested in the success of wholesale gas departments to take care of anything that they may suspect as not being absolutely correct.

Checking Bills

All wholesale bills must be checked, all gas appliances must be carefully inspected to insure adequate gas supply, and every precaution must be taken to maintain continuous and satisfactory service if we are to succeed in the wholesaling of our product.

When the Budget Committee are working to esti-

mate expenses for the coming year, they should make a liberal allowance for the industrial department, in view of the fact that the nature of the latter's work is more or less of a pioneering type, and included in this allowance should be a liberal expenditure for advertising, both local and through the A. G. A.

Wholesale Departments in Very Large Gas Companies

In this type of company, the industrial territory is not only divided up into districts, but very often we find the various industries are classified, sales engineers then being assigned to industries having a certain class of available business within a certain district. The general result of such practice is a department composed of highly specialized men, each an expert in a certain field; a man looking after the meat packing industry, another devoting his entire time to soft metal melting, which includes newspapers, galvanizing and such work, and still another working on the heat treatment of steel, etc. The number of prospects given each man will depend, of course, on the amount of wholesale gas business available.

Salary for Special Work

Sales engineers working on specialized work and not assigned to any particular territory should be paid a salary comparable to their work on the same basis that one would pay for any other professional services, such as those rendered by lawyers, doctors, or the like.

We, therefore, feel that the larger the gas company the greater the benefit derived from an industrial gas course. Men can be given such a course and in a single lecture cover all they will need to know concerning the manufacture of gas, the distribution of gas and similar subjects, thereby eliminating the time required were these men to get this information by actual experience in the various departments. After going through the course, the sales engineers can be given books and publications that cover more in detail the particular heating operation that they are to deal with. Before starting out on active wholesaling work, new men in the large company have an opportunity of spending as much time as is thought desirable with men of long experience. The information that they gain in this way, obtained by making actual calls on prospects and consumers, the developing of problems, and the closing of contracts, is very valuable and probably does more to fit a man for wholesaling work than any other experience he could possibly get.

Wholesaling Departments in Large Corporations Having Medium Sized Gas Properties

In this type of organization, the degree of specialization does not exist that does in the large gas company considered above. Men in wholesale departments, in the case of the medium sized gas company, must be more familiar with all phases of the gas business, and should be able to handle all types of wholesale installations with the assistance of more experienced men working out of a general office.

We suggest that actual experience in the various departments of a local property be, therefore, substituted for the course recommended above in the case of the large gas company. As a man goes through the departments of a local property gaining experience which will fit him for wholesale work, he should be under close observation of one in authority who can arrange his time and the experience he gets so as to be most beneficial.

The Organization

There should be a manager located in the general office who is in charge of the gas wholesaling work in the various properties. It should be the duty of this man to see that new men are available when needed, and also to direct the training of new men and the activities of the sales engineers in the various properties where wholesaling work is being actively carried on. It will be necessary for him to have sales engineers of experience under him and working out of the general office who can keep in personal contact with men in the field and be of valuable assistance in effectively directing the efforts of the local men and assisting in special problems that may develop.

Large corporations having medium-sized gas properties should make it a practice to hire a certain number of technically trained college graduates each year. These new men should be placed on the various gas properties where they can be watched by department heads of the general office and be available for work in any department that may need them. During the time these men are working in the various departments that exist, they should be closely watched by the manager of the wholesale gas department. Those of the new men who possess sales ability and have an ability to meet people, are alert, active and sincere, are no doubt very desirable candidates for wholesaling work. The manager of the wholesale department should be looking for these qualities in new men and see that those possessing them receive experience in the manufacture and distribution of gas. They should also have occasion to become familiar with the complaint department, where they can learn of the difficulties met with in serving the public, and have an opportunity to develop a certain amount of diplomacy which is essential in wholesaling work. Such men will want to receive actual experience in domestic and factory piping and assist in industrial gas installations and tests.

Servicing Work

Before new men who have passed through the departments be allowed to actively engage in wholesale work, they should be given a list of wholesale users of all classes, whose gas appliances should be serviced regularly by them. This servicing work enables new men to come in contact with the application and operation of gas appliances. It will also get them accustomed to servicing work, which is absolutely

essential in successful wholesale departments. Before starting out on servicing work, a new man should, however, be given to understand that it is not his duty to make changes in existing appliance installations, at least not until he has thoroughly studied them, but rather that he is to make the most of his opportunity of gaining valuable information pertaining to gas appliances and their operation from the various plant operators he may come in contact with. This practice tends to give a man confidence in himself and will benefit him in wholesale gas work.

Inspection Trip

To round one's training for wholesale gas departments, we believe it advisable to send him on an inspection trip to some large industrial city where a number of different industrial gas installations can be inspected in co-operation with the local gas company.

All men selected as suitable candidates for wholesaling gas departments should be encouraged to study books, magazines, etc., pertaining to this type of work, as well as literature describing the construction and operation of gas burning equipment.

Operation of Department

The operation of such a department as we have herein discussed, while of utmost importance, is an entirely different subject, which, to be properly covered, should be treated in a paper by itself. Therefore, in this paper we have intentionally omitted any consideration of the operation of a wholesale department, or how to sell gas.

It is well to co-operate with the furnace manufacturers because in their wide experience in other localities they are often able to convey to you some new information as to what other companies are doing. The greatest benefit from this co-operation with the manufacturer is, however, in the sale of gas, and it is not intended to cover that subject in this paper.

In closing, the most important message we can leave with you is that to have a highly successful wholesale department is to have one in which "enthusiasm" is the watchword. An enthusiastic organization can do more in a given length of time and do it better than any other kind of an organization, no matter how apparently hard working it might be. Gas men generally should be enthusiastic about their business, and unless an industrial man is enthusiastic, he might just as well not attempt to go after the business.

Relations with Customers*

Report of 1925 Committee

W. A. Doering

Chairman, Boston Consolidated Gas Company, Boston, Mass.

Introduction

THE task before your Committee on Customers Relations this year was not an easy one after the most excellent reports of your two previous committees. However, after the first meeting of the committee it became a question of elimination rather than that of finding subjects to work upon. With this end in view it was decided to divide the work into three groups under the supervision of the General Committee:

The three groups, namely,

Sub-committee on Gas Company Standards in Treating with Customers,

Sub-committee on The Gas Company and the Telephone,

Sub-committee on Gas Company Contacts Through Customer and Employee Ownership,

herewith submit excellent reports for your approval.

The Sub-committee on Gas Company Standards in Treating with Customers has been ably handled by Mr. Bonsall and his committee. In this report they suggest the quick adjustment of over-payments, the prompt return of deposits, liberal allowance on disputed claims and also make various suggestions dealing with credits and deposits which will be of benefit to the industry as a whole.

The Sub-committee on The Gas Company and the Telephone under Mr. J. M. Roberts deals with the every-day use of the telephone and goes extensively into the question of help, types of help and education thereof, also the necessity of legible writing. This paper finishes up with an addenda which the shortness of time does not permit of reading, but it should not be lost sight of and should be read by every one as it contains many valuable suggestions.

Customer Ownership

The Sub-committee on Gas Company Contacts Through Customer and Employee Ownership under the able leadership of Mr. C. R. Stull has presented a paper which will be of benefit to both the large and small companies who are contemplating the disposal of their stock through customers and employees. This paper deals with the subject of cre-

*Delivered at the Tuesday Meeting of the Accounting Section, A. G. A. Convention, Atlantic City, Oct. 13, 1925.

ating good relationship with the banks of the community, the effects of charging a re-sale commission, advertising and publicity and the accounting practice of handling customer and employee ownership of securities.

The chairman wishes at this time to publicly thank each and every member of the various committees for the excellent support given to him, also the chairman and vice-chairman of the Accounting Section and its secretary for their help and assistance.

In conclusion the subject of relations with customers, in the opinion of this committee, has not been exhausted and it is recommended that a similar committee be continued by the coming administration.

REPORT OF SUB-COMMITTEE ON GAS COMPANY CONTACTS THROUGH CUSTOMER AND EMPLOYEE OWNERSHIP

C. R. Stull, Chairman, American Gas Company, Philadelphia, Pa.

CUSTOMER contact through the medium of customer ownership may be said to represent one of the strongest avenues of customer association which is open to our companies today. The report of this sub-committee will deal with three of the primary features which are deemed necessary in undertaking customer ownership work. These three features bear very strongly on successful customer ownership work and careful attention to details incident to their development will undoubtedly be of great benefit to those companies carrying on the work.

Contact With the Banks

The banker in any community, whether it be large or small, commands the respect of the citizens, whether those citizens are of large means or small means. The sale of our companies' securities is fostered with the idea usually both of promoting sound investing and to obtain necessary funds for the extension of gas service. From the investment side, the banker's opinion is very likely to be requested by many prospective investors. The more the banker knows about our business, its creed of operation, its financial status, the more likely he is to give wholehearted support in this work.

In the smaller communities the ultra-conservative banker often takes the stand that every $100 invested in our securities by one of his depositors is so much money taken from his bank. To offset this feeling, the banker must be told in a convincing manner that while the money leaves his bank temporarily, yet it may come back again the next day as a deposit from the gas company, provided the company is a depositor at his bank. On the other hand, assuming that the company is not a depositor at his bank, the money is temporarily placed to the company's credit in another bank, there to be checked out for wages, materials, supplies and other types of service rendered by the citizens or business interests in the community. It is distributed among the hardware men, the butcher, the baker and the theatres. It is promptly returned to the bank by these business men as a deposit to their account, and in the meantime not only is the company fostering sound investing with assurance to the investor in the community that the $100 is safe, but it has benefited business and put money in circulation. If the facts of the case are properly presented to the banker, he will readily understand that all the new capital raised by customer ownership work carried on by the public utilities in his community goes directly or indirectly into property in the community. As a result of this values generally are increased, living conditions benefited, all of which in turn tends to increase taxable values for other community purposes and requirements. Further, the banker should be made to realize that every dollar for legitimate investment in gas company securities is so much less for the "blue sky" salesman, who not only takes the money out of town, but seldom returns it. It seems peculiar, but is ofttimes true, that a great many of our customers who consider investing in the high grade preferred stocks offered by our companies will go to a banker or attorney for information as to their merit, but if they are taking a flyer on an oil well or other speculative enterprise, will try to keep the matter secret and never ask anyone's opinion.

Conditions in Larger Cities

In the larger cities it may be difficult to obtain that personal association with the bankers which is easily accomplished in the smaller cities and towns. The banking interests should all be informed regularly of the financial condition of the company, either by mailing out monthly reports or direct personal information conveyed by the company's authorized representative to the active heads of the bank. In a great many towns the companies report that the banks co-operate in the sale of securities to the extent of accepting orders for company securities, then turn them over to the office for completion. This is particularly true where the bank may be designated as an agency for the payment of the monthly gas bills. It is believed to be good practice to designate banks in outlying sections to receive these pay-

ments. The banker is glad to have the gas customer come to the bank to pay his bill. Not only is this a convenience to the customer in places where the company may not have an office, but it is sound co-operation to encourage our customers to carry bank accounts. The banker appreciates and benefits by the operation of this plan.

Contact With Brokers

A feature closely allied with the contact with banks is contact with brokers. Customer ownership work does not contemplate that the securities be sold through brokers, but it is suggested for consideration that within definite limits the companies can benefit by accepting orders for small blocks of stock which may come in from brokers. There are widely divergent views on the desirability of receiv ing orders for stock through brokers. It seems, however, that some of the difficulties which arise are due to registering stock in the name of the broker originally, thereby permitting him to carry a balance on his shelves to be later sold to purchasers. If he has a block of stock available which may not have moved quickly enough to suit his requirements, then under stress of circumstances he may, at some time, be disposed to undersell the company.

The policy of one of the larger companies, which is successful in this work, is to refuse to sell to brokers except where the order carries with it the ultimate purchaser's name for immediate registration. The price to the broker is also on the basis of the market price less an amount equivalent to one-half of the commission which is allowed to the employees who are selling this stock direct to customers. In a comparatively few instances which have developed where a broker has either traded out a customer or attempted to do so, and an inquiry is made for a quotation on the stock which he has obtained or expects to obtain, he is immediately advised to have the stockholder get in touch with the office of the company where the stockholder does business, the statement being made that resale of securities is effected only through the local organization.

Buying Through Broker

Very often a customer of the company, who is determined to buy the company's securities, insists on buying through his broker. In such cases it would seem manifestly harmful to refuse to accept such an order, at the same time allowing a small commission to the broker on the sale. It not only strengthens the value of the security in the mind of the purchaser, but it also will result in helpful co-operation on the part of brokers when necessity for transfer of small blocks of stock may arise through brokerage channels. Even though the company encourages all stockholders to maintain contact with its offices, when they desire to dispose of their stock, yet it is a fact that a certain amount of this stock is traded in through banking or brokerage houses, and naturally any consideration given previously to the broker should be beneficial at the time of such transfers. The conditions surrounding brokers' activities in a particular community would dictate the rules governing this relationship, so it is not the purpose of this committee to attempt to lay down any set of rules, but merely to suggest that this co-operation is undoubtedly beneficial, and therefore it is commended to the attention of company members for their consideration.

Effect of Charging a Resale Commission

The volume of sales that has developed in our customer ownership work has reached such a figure as to suggest the desirability of the company absorbing resale expense in the case of all securities sold through customer ownership campaigns presented to them by customers for resale. When it is considered that as a result of customer ownership work the securities enjoy a wide distribution with average holdings, in the case of stocks, running probably between five and ten shares, it is readily seen that at no time except under conditions of calamity would there likely be any wholesale requests on the part of customers that the company effect a resale of their holdings. The reports of members of the committee whose companies have been active in customer ownership work indicates that the proportion of requests for resale is almost negligible in proportion to the amount of stock outstanding, and the absorption of any small resale cost leads to better public relations. The customer who owns five shares of stock, but who, due to press of circumstances, requires the money, is more likely to reinvest with the company when fortune smiles on him again, provided the company has paid him the market price for his stock, than if they had attempted to deduct one or two points to cover a small resale expense incurred by them.

It is very easy to spend $100 or $1,000 in newspaper publicity, calculated to promote public relations. A continuous expenditure for newspaper publicity produces a better understanding between the customer and company, but it soon reaches big figures. It is believed, however, that a reasonable amount of expense absorbed by the company on account of resale expenses on customers' stock would benefit public relations to an even greater degree than if spent in the ordinary channels of publicity. There is no better advertisement than a satisfied customer and one who believes in your business and the principles used in its operation. The good faith evidenced by the mere act of reselling his securities without deduction is a mighty good advertisement, and your customer will be the first one to pass it along to his neighbor and to his neighbor's neighbor. He will be talking for you all the time.

No Resale Charge

The committee submits for the consideration of the company members the desirability of adopting, whenever possible, the practice of "no resale charge." It is not prepared to say it is the best in all cases, but the report of the many members lead to the belief that the money involved is of great benefit in promoting better customer relations.

A further feature is that the customer is encouraged to retain his association with the company office. He is brought into the office and there has better contact with the commercial side of the company's business. Our companies adopt a great many plans for encouraging customers to come to the office and buy merchandise. Therefore, the encouragement which you give to the customer to bring his securities to the office, when the necessity arises for disposition, gives you this other valuable phase of relationship. It also prevents the customer from sacrificing his securities to unprincipled purchasers on the outside.

The foregoing does not even suggest that any "agreement" should be made with a customer that at such time as he may wish to dispose of the securities the company will buy them back at the price paid, or resell without charge. This could not be done honestly, in fact under a great many conditions, if not all conditions, it would be illegal, and it is not impossible to think that in the face of calamity that there would be a rush of people who would like to get their money.

Fixed Resale Policy

The company which, because of active growth, or for other reasons, is going to need large amounts of money from year to year, is advised to consider 25 years in the future, or even longer, before adopting a "fixed" resale policy which carries promises with it. Admittedly, most customer ownership stock sold is for investment, put away in strong boxes and forgotten. But people will run into hard luck, and some will die, so that it is a sure condition that from time to time stock finds its way back to our offices for resale. The company need not go further than to say that it "maintains facilities for the resale of securities held by original customer purchasers who may find it necessary to dispose of them." The practice of reselling on a basis which would return the entire original investment to the customer need only be continued if money rates and the condition of the investment market warrant it. In the case of listed securities, the Stock Exchange price would necessarily govern. In the case of unlisted securities, the price of our securities held in small blocks by our customers may often be maintained in the face of serious market declines. Even then the few shares turned in for resale will find a ready market at a good price to some customer whose name is on the waiting list.

Advertising and Publicity

Primarily the success of the customer ownership campaigns may be said to depend upon healthy public relations. Thousands of our customers who have invested in gas company securities over the past few years have done so, not because of any understanding of the fundamental principles of sound investing, but because of the fact that they have had a cordial relationship with their gas company over a period of years and as a result of educational publicity they have come to feel that the company is not only rendering a necessary service to them, but is rendering this service with due regard to their rights as a customer and with due regard to honest business principles which appear in all of their relations.

It is believed that in advance of any offering of securities to customers that a campaign of newspaper publicity is desirable in order to lay before the people a number of fundamental facts concerning our business. It may be that these fundamentals have been brought to their attention on previous occasions, but just before the announcement of a security sale real benefit would be derived from repeating the information.

Mr. Moody on Gas Company Securities

An address by Mr. John Moody on "Gas Company Securities" which was delivered at the 1924 convention has this to say concerning publicity:

"The kind of publicity which the gas industry in this country ought to develop, it seems to me, and this is really the keynote of my thought in this talk this morning—the kind of publicity that ought to be developed is the kind of publicity that will reach down to the masses of the people in a way which they can understand. The fact ought to be brought out that the gas industry is an essential industry to start with, is something that does not suffer in periods of depression, of panic or reaction, like the copper industry, or the oil industry or the steel or a large number of other industries. It is the kind of industry that is not affected vitally by the so-called business cycle, which is simply a term defining the recurrence of prosperity and depression which we have in this country. It is not vitally affected by changes of that kind. That is the kind of thought that ought to be brought out and blazoned all over the country; that here is one of the few absolutely essential industries, one performing a service which the country could not under its present condition of living get along without; that we couldn't have our modern civilization without this industry being developed and performing its business.

Remarks Should Be Studied

The remarks of Mr. Moody may well be studied by those of our member companies who are responsible for successful operation of customer ownership work. There are other forms of publicity which should be used to supplement newspaper advertising. Lectures before students in our high schools, coupled up with inspection trips made to our plants, open the way to the education and enlightenment of the coming generation of citizens in the problems and advantages of our industry. Over the past few years a wonderful supply of ideas has been developed by publicity men among our company members. These ideas are undoubtedly available for use by those companies who have not yet embarked on customer ownership work, due, in some cases, to lack of information on possibilities and value, and further due to the fact that they feel that they have not the organization to carry on the work. It is the opinion of the committee that where this situation exists in the case of the smaller companies, that the officers of larger companies would be only too glad to co-operate, and within reasonable limits lend the services of their organizations to aid in promoting customer ownership campaigns in the smaller companies.